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ABSTRACT

The yearbook attempts to describe and evaluate the new teaching methods as they relate to the various business subjects: basic business-economic education, marketing and distributive education, and office education. Additional articles are devoted to cooperative education, simulation, laboratory experiences, and postsecondary programs. In their discussions of changing methods of instruction, the authors have combined the results of proven research and practical application. They review teacher education and comment on changes in subject content, the use of simulation (role-playing and simulation games), technological changes influencing teaching methodology, the value of individualized instruction, changing institutional roles, and new approaches in continuing education. One of the two concluding chapters stresses relating the changes to multi-ethnic approaches to classroom instruction. The final chapter points out more specifically how the positive teaching practices and techniques discussed in the various subject areas separate the highly professional, dedicated teacher from the "run-of-the-mill" teacher. (Members of the National Business Education Association Board are listed.) (AG)

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Changing Methods of Teaching Business Subjects

CE 001 312

Changing Methods of Teaching Business Subjects

NATIONAL BUSINESS EDUCATION YEARBOOK NO 10

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CHANGING METHODS OF TEACHING BUSINESS SUBJECTS

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Foreword

Business education has long recognized that its occupational program must be related to the actual and anticipated needs of business. The vast changes in the business world, ushered in by the age of technology, have necessitated parallel changes in education, both in terms of curriculum and in methods of instruction.

Changes have also occurred because of the discontent with the existing educational system, evidenced by the student dropout rate. This has led to a shift in educational philosophy from a teacher-centered emphasis to a student-centered one. Individualized instruction has become the byword of the seventies, and curriculums are being planned which take into account individual performance goals as well as occupational objectives. A key part of the planning involved in reorganizing curriculums is relating methods to content and deciding on the most effective techniques for achieving the desired goals.

Teachers need to thoroughly understand the purpose as well as the use of instructional procedures; it is essential to understand *why* a particular method is used as well as *how* to carry it out. This Yearbook attempts to describe and evaluate the new teaching methods as they relate to the various business subjects. Those who have been reluctant to experiment with some of these new techniques may find some of their questions answered and be in a better position to judge the effectiveness of a given method.

While teachers should welcome the opportunity to discover something new and better, proven methods which hold up under evaluative scrutiny should not be discarded merely because a new technique has come along. The human element is also important, and what works for one teacher (or for one student) may not work for another.

A willingness to experiment with new ideas and the skill to evaluate their effectiveness are required of today's business teachers. In discussing these changing methods of instruction, the contributors to the 1972 Yearbook have brought together the results of proven research and practical application. Their combined efforts in this book constitute an invaluable resource for business teachers who wish to provide the best possible learning experiences for their students.

O. J. Byrnside, Jr.
Executive Director

Contents

CHAPTER PAGE

SECTION I

BASIC BUSINESS-ECONOMIC EDUCATION

1 **Basic Business** 1

RAY G. PRICE AND CHARLES R. HOPKINS
University of Minnesota
Minneapolis, Minnesota

THOMAS B. DUFF
Richfield Senior High School
Richfield, Minnesota

2 **Consumer Economics** 11

THEODORE J. BODUCH
Morton West High School
Berwyn, Illinois

3 **Business Law** 24

NEIL GASTON
Trenton State College
Trenton, New Jersey

4 **Business Principles and Management** 39

WILMER O. MAEDKE
The University of North Dakota
Grand Forks, North Dakota

5 **Economics** 54

EILEEN GENTRY
University of Colorado
Boulder, Colorado

SECTION II

MARKETING AND DISTRIBUTIVE EDUCATION

6 **Marketing and Distributive Education** 66

EDWARD T. FERGUSON, JR.
The Ohio State University
Columbus, Ohio

CHAPTER PAGE

SECTION III

OFFICE EDUCATION

7 **Typewriting** 84

FRED E. WINGER
Oregon State University
Corvallis, Oregon

8 **Shorthand** 98

RUTH I. ANDERSON
North Texas State University
Denton, Texas

9 **Transcription** 114

ALAN C. LLOYD
McGraw-Hill Book Company
New York, New York

10 **Secretarial Procedures** 128

ELENA M. BUMANGLAG
Waipahu High School
Waipahu, Hawaii

11 **Clerical Procedures** 148

MARIE J. LYNCH
Quincy High School
Quincy, Massachusetts

12 **Accounting** 160

JOHN ISKRA, JR.
State Department of Education
Sacramento, California

13 **Data Processing** 167

JOHN W. WESTLEY
Illinois Central College
East Peoria, Illinois

CHAPTER PAGE

14 **Communications** 183
Edda Perfetto
Nanuet High School
Nanuet, New York

15 **Business Mathematics** 195
Anne G. Mayes
Metropolitan Public Schools
Nashville, Tennessee

Sadie C. Gasaway
Tennessee State University
Nashville, Tennessee

SECTION IV

ORGANIZATIONAL PLANS

16 **Cooperative Education** 206
Josephine C. Willis
State Department of Education
Baton Rouge, Louisiana

17 **Simulation** 223
Garth A. Hanson
Utah State University
Logan, Utah

E. Charles Parker
University of California
Los Angeles, California

18 **Intensive Laboratory Education** 240
Larry L. Shinn
Lincoln High School
Cambridge City, Indiana

SECTION V

POSTSECONDARY PROGRAMS

19 **Junior and Community Colleges** 258
Ronald K. Edwards
Lansing Community College
Lansing, Michigan

CHAPTER PAGE

20 **Independent Business Schools** 271

JOHN E. BINNION
Lear-Seigler Education Company
Denver, Colorado

21 **Continuing Education** 286

ROBERT E. FINCH
Individualized Program Instruction Laboratories
Cincinnati, Ohio

22 **Teacher Education**

Part A: An Overview 294

VAUGHNIE J. LINDSAY
Southern Illinois University
Edwardsville, Illinois

Part B: Application of Technology 303

ARNOLA C. BOSE
Oklahoma State University
Stillwater, Oklahoma

SECTION VI

THE KEY TO SUCCESS IN MEETING CHANGING METHODS OF TEACHING BUSINESS SUBJECTS

23 **A Multi-Ethnic Approach** 310

LUCILLE N. POLK
District of Columbia Public Schools
Washington, D.C.

24 **The Dedicated and Professional Business Teacher** 316

LEROY BRENDEL
West Hempstead High School
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Section I

BASIC BUSINESS-ECONOMIC EDUCATION

CHAPTER 1

Basic Business

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Change in teaching methods of any business subject is usually associated with change in content. More important, however, is that the nature of the content to be taught must be considered when selecting a teaching method. This is especially true of general business.

DEVELOPMENTS OF THE 1960's

Before we discuss the developments of the 1960's, it is essential to document some of the background of the general business course. Only in this way can we relate the past with the present and the present with the future.

General business has a poor heritage. General business is a course that has evolved through a series of objectives. Originally, its purpose was to prepare potential drop-outs for clerical-type jobs—messengers, timekeepers, file clerks, shipping clerks, cashiers, and the like. At various times since, general business has been an exploratory prevocational course, a personal-use business course, and a consumer course. But there really was no exact point in time when one purpose

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gave way to another. The emphasis shifted, but the basic content of the course changed very little. The objectives changed, but as with the content, the methods used to attain the objectives remained the same.

The general business course of the past was vocationally slanted with general education claims. Most business teachers were well prepared in the skill areas, both in content and methods. As teachers of general business, however, they were seldom well prepared in either content or methods. As a result, teaching methods were geared to the vocational content and to the business teachers' strength of preparation. The natural outcome of this combination was that skill methods were used in general business teaching. The emphasis was placed on remembering facts and developing skills with little effort being made to reach higher levels of learning where understandings and concepts are developed and attempts are made to help students assess and change attitudes.

The general business teacher was, therefore, using questionable methods for a course that was claimed to have general education values. Not only were the teaching methods fact and skill oriented, but they were teacher centered as well. Students were given a rather passive role in the learning process.

Methods, common but inappropriate, included the following: (1) *textbook*—students read the chapter and answered the questions at the end; (2) *drill*—arithmetic and spelling drills, very often remedial in nature; (3) *lecture*—teacher dispensed the facts; (4) *question-answer*—teacher asked the questions, students gave the answers; (5) *paper and pencil projects*—projects included such things as preparing and/or filling out forms. It is obvious that these methods were not conducive to the development of ideas, concepts, understandings, and attitudes.

As one looks at its history, it is surprising that general business survived to the 1960's. It has been a sort of hand-me-down course that really never did fit its stated objectives. However, not only did the course survive, it has survived long enough to be rejuvenated.

General business of the 1960's. It was in 1960 that the campaign for economic education became a reality for business teachers. As a result of this concern for economic education, general business teachers accepted *one* overall purpose for their course: "To help *all* students understand the role of business in our economic system." This same objective is sometimes stated as "the development of economic understanding."

Why is economic understanding so important? It is important because our particular type of economy is basically one of free enterprise. Its guiding force is the sum total of the millions of individual economic decisions all of us make as consumers, workers, and voters. Our job is to educate students for tomorrow's world. Whatever else the future may hold for today's students, it is safe to say that most of them will take jobs, marry, raise families, live in communities, pay taxes, and vote. The preservation of our basically free enterprise system will depend on their ability to make wise economic decisions. For all of them, therefore, economic understanding is not only important, it is essential.

Characteristics of the "new" general business. General business teachers were quick to accept the new objective of the course—the development of economic understanding. In keeping with the new one-objective philosophy, specific course characteristics evolved. The characteristics of the new general business course are:

1. It helps students to understand the role of business in our economic system so that they might function effectively as consumers, workers, and citizens.
2. It is for *all* students, not just for those planning to major in business or for those likely to drop out of school before graduation.
3. It provides for in-depth coverage of a smaller number of related topics.
4. It deals with more important topics. No time is wasted on things students already know, will learn as a matter of course, or may never need to know.

CHANGES IN THE 1970's

In view of the new one-objective characteristic of general business, the content began to change. Methods began to catch up with the new objective and the new content. Economic concepts and understandings became the concern of general business teachers as opposed to the teaching of facts and the developing of skill in preparing business forms. Less or, in some instances, no time was spent on such things as telephoning, writing checks, travel time schedules, and other "busy work" activities that did not contribute to the attainment of the objective—understanding the economic system.

Since student involvement and relevance were the concerns of all educators, student participation became more than mere committee work under the domination of the teacher. Students were asking for education that was meaningful. Unfortunately, administrators and counselors, as well as many teachers, were not ready for the new concept of general business. Would you believe that some principals and counselors still think that general business is only for business students? Even worse, would you believe that some principals and counselors still think that general business is for students who cannot make it academically?

You would think that present evidence of the attitudes of young people toward business would shake us from our apathy. A recent executive of a well-known business firm said: "In a popularity contest, today's student would rank business somewhere between war and disease."

Methods to meet emerging changes. General business teachers in recent years have become concerned about concepts, understandings, and attitudes. They have also become aware of the need for teaching and learning activities to be student rather than teacher centered. As this awareness has increased, general business teachers are beginning to change their teaching philosophies. They are moving away from the use of skill methods in order to provide more student participation and to reach higher levels of learning. Some of the methodology that is becoming more important in the teaching of general business will be discussed in the following paragraphs.

Developing concepts and understandings. A concept is an organized thought pattern. Understanding is said to be discernment, comprehension, or interpretation. It is also defined as the power to render experience intelligible by bringing perceived particulars under appropriate concepts. Although we talk about teaching concepts and understandings, such is not the case. What the teacher does is set the stage for the development of concepts and understandings. It is true that the teaching of facts is essential to the development of concepts as well as to the development of understandings; however, a student may be able to recite a whole collection of facts without ever understanding the concept involved.

In developing concepts and understandings, it is essential to use teaching methods that will be most appropriate in attaining the desired goal. Keep in mind that there are two kinds of learning activities: those from which students learn indirectly and those from which students learn directly. The latter type are student centered and naturally involve the student more in the learning process than do the indirect activities.

To illustrate one way in which concepts may be developed, a three-step simplified example is used. The steps include: (1) identification of the concept to be developed, (2) use of effective learning activities to assist students in grasping the concept, and (3) providing opportunity for students to apply their understanding of the concept.

Assume that the concept to be developed is that of *production as income*. The class discussion begins with the question, "What is income?" After the usual sources of income are identified, such as money paid to workers for producing goods or services, interest payments, rents, etc., the students can become more closely involved by discussing the various ways they earn income and how they contribute to production in exchange for such income. Other kinds of production that provide income for people their age in the community could be explored by a student committee.

After students have read the textbook pertaining to production and income, a summarizing activity might well be the presentation of a [illegible] graph transparency showing total production in the United States over a period of years. Students would then be given a set of figures from which to construct a similar line graph showing what happened to income during the same period. This activity would involve *student participation* and visualize dramatically the relationship between production and income.

Student application of the concept developed is the crowning and essential ingredient of any learning situation. After all, education is the process of developing and refining concepts and applying them to old and new situations.

Regardless of how well students understand a concept in a limited area, it is only when they begin to use it broadly that they realize its importance and begin to understand it.

Items in newspapers and magazines provide excellent opportunities for students to apply their understanding of the real world of business. Therefore, students should be given the opportunity to bring to class examples from newspapers and magazines that illustrate the concept of production as income. This places the responsibility upon the student to discover the application of the concept to current developments.

The use of the inquiry method has also been effective in the development of economic concepts. For example, in developing the concept of interdependence, it is essential to start with the understanding of the concept of specialization. This provides a natural setting for students to explore the relationship between specialization and interdependence. As was previously stated, economic concepts are not taught. They are developed as students learn for themselves that a particular fact is true or that a cause-and-effect relationship does exist. The teacher's responsibility is to provide ways for students to make the discovery. The activities to bring this about should proceed from the simple to the complex, thus forcing students to do their own thinking.

Simulation. Another method which general business teachers are beginning to use more and which will continue to grow in importance is that of simulation. Simulation can be described as the organizing of realistic experiences to be played out by students in order to provide them with lifelike, problem-solving experiences related to their present or future life. In general business, two variations or forms of simulation are most commonly used: role-playing and simulation games.

ROLE-PLAYING. In role-playing, hypothetical but representative circumstances involving interpersonal relationships are established, and participants take roles in which they act and react spontaneously. Role-playing has been defined as a method of human interaction that involves realistic behavior in an imaginary situation. People act as though what they are doing is "for real" in a make-believe kind of situation. Role-playing may serve any of the following teaching purposes in the general business classroom:

1. To present alternative courses of action
2. To develop better understanding of problems
3. To develop better understanding of other people's points of view
4. To prepare for meeting future situations
5. To increase spontaneity and encourage creative interaction
6. To give students practice in what they have learned
7. To illustrate principles from the course content
8. To maintain and/or arouse student interest
9. To stimulate discussion

10. To develop more effective problem-solving ability
11. To develop desirable attitudes.

Role-playing is a method of providing the individual student an opportunity for active participation in the subject matter being studied. Students are able to live critical incidents, to explore what happened in them, and to consider what might have happened if different choices had been made in the effort to resolve the problem or situation involved. Such practice allows students to learn from mistakes under conditions that protect them from any actual penalty.

Two examples of role-playing situations that may be used to help develop concepts and understandings follow:

1. The students organize into a community of self-sufficient households, each producing its own goods and services. What happens to income?

2. A teen-age boy wants to buy an automobile. He needs to get his parents' agreement, obtain credit for part of the amount, and purchase insurance.

SIMULATION GAMES. Simulation games are selected examples of physical and/or social happenings which incorporate a game technique. When simulation games are used, players assume roles and interact with other players. They make decisions based on their roles and interactions. Outside forces such as natural events, economic or social pressures fed into the system, or actions by another player or group affect decisions and determine their wisdom.

The rules of the game limit the range and define the nature of legitimate actions of the players. Also, the rules establish the basic order, sequence, and structure within which the actions take place. The simulation game is delimited in time as well as extensiveness, with an end defined by the rules.

Some simulation games are computer based. There is a feeling that while noncomputerized simulation games and role-playing offer attractive opportunities for personal interaction among learners and among learners and teachers, simulation games using the computer may be more effective in reaching certain instructional objectives. With computer-based simulations, it is possible to design more complex programs for developing problem-solving or decision-making abilities. When using the decision-making type of program, there are several alternative answers. The simulation game helps the learner to apply and evaluate alternative courses of action at the decision point. The computer prints out periodic status reports, and the learner decides whether or not he is satisfied with the state of affairs. If he is not satisfied, he goes back to the beginning and works through the problem again, making alternate choices. It is also possible to design a computer-based learning program combining a simulation game and role-playing. With this type of program, an entire system involving a number of people playing various roles can be the basis of testing decisions made by individuals in the roles and the effect of the individual decisions on group objectives. Because of inaccessibility of equipment as well as the cost factor of both equipment usage and game development, most simulation games used in general business at this time are of the noncomputerized type.

There are several advantages or reasons why the teacher of general business chooses to use simulation games in his classroom. One of the most important reasons is that simulation games have the built-in motivation for learning inherent in games. Other important advantages are:

1. Simulation games provide an opportunity for the student to become actively involved in the teaching-learning process.
2. Simulation games help make complex ideas or concepts more manageable and more concrete. When concepts and facts replicate life situations, they are probably more relevant to the student; as a result, the learning is probably easier and retained longer.
3. Simulation games do not focus on skills and concepts alone, but also emphasize the decision-making process.
4. Simulation games provide simulated situations through which students may gain understanding and empathy for those living in other social environments.
5. Simulation games help students learn to anticipate and to deal with situations before they encounter them in real life. The student can get immediate feedback about the consequences of his actions, reevaluate his actions, and try alternative courses of action. Since the student does not have to suffer the consequences in reality, he may be more likely to experiment with new ideas.
6. Simulation games may provide students with an opportunity to develop communicative skills and to develop persuasion- and influence-resisting techniques.
7. Simulation games seem to be appropriate for use with students of differing scholastic ability. They also seem appropriate for use with various organizational patterns such as small- and large-group instruction, team teaching, and interdepartmental courses.
8. Simulation games enable the teacher to evaluate concept understanding, attitude development, and social-emotional development easier than with such traditional techniques as discussion, committee work, or construction projects which emphasize content rather than student participation.
9. Game debriefing sessions provide a time for members of the class to compare outcomes, strategies, or consequences of actions. Debriefing also leads students to seek alternative responses, to highlight unique or significant responses or procedures, and to determine if the responses or strategies would be appropriate under other circumstances or at another time.

General business teachers using simulation games should also be aware of several possible disadvantages of this mode of instruction:

1. Simulation games available on the commercial market may be quite costly.
2. Simulation games may be more time-consuming than more highly structured, teacher-directed activities such as lectures, reports, and workbook exercises.
3. Simulation games may be threatening for the teacher who sees his role as the center of learning and the supplier of knowledge.
4. Simulation games may encourage some teachers and students to focus on the game element and to neglect the learning aspect of the exercise.
5. Procedures and standards for the evaluation of simulation games are lacking.

There are several simulation games currently available for use in the general business course, with more being developed all of the time. Some of the more popular ones in use at the present time are:

1. Consumer. This constitutes a unit on consumer buying processes. It involves the players in the problems and economics of budgeting income and of installment buying. Consumers compete to maximize their utility points for specific purchases, while minimizing their credit charges. The three different credit agents also compete to make the most satisfactory lending transactions.

2. Market. This game is designed to develop in students an understanding of the way prices are determined in a market economy. It illustrates the principles of supply and demand and price level. Students play the roles of consumer and seller in a grocery store and bargain over the price of goods.

3. Management. This is a computer-based game in which teams represent small businesses. Team members make decisions on manufacturing operations. They decide on unit selling price, the amount of money to be spent on advertising in various locations, expenditures for research and development, etc.

In general, research indicates that role-playing and simulation games are no more effective than other devices and methods in achieving typical learning outcomes. However, it does appear that interest and motivation are higher. In the future, we can look to simulation games and role-playing to change the teacher's role, to reduce the discrepancy between school and "real life," to involve students as active learners, and to motivate students to go beyond the traditional expectations in knowledge acquisition and concept and understanding development.

PROSPECTS FOR THE FUTURE

An increasing number of school systems are using modular flexible scheduling. Many school districts are experimenting with quarter courses, while some schools are investigating a four-quarter, twelve-month school year. These are attempts to provide for individual student differences. Along with scheduling changes, general business teachers will increase their effort to individualize student learning through the use of individually prescribed instruction. With individually prescribed instruction, students will be permitted to exercise considerable latitude in selecting their courses as well as the content of their courses. Students will not be expected to study what they already know or what they do not need to know just because it is in the course outline. They will be able to select areas of study in which they have a special interest.

As these changes are made, more learning will take place individually rather than in groups. For maximum transferability, what is being learned will be presented in as many ways as possible. The textbook, for example, will not be the only teaching tool. Multimedia packets consisting of films, filmstrips, slides, records, and tapes, which will be used to supplement the textbook and enrich the learning process, are becoming available. The film clip or single-concept film is growing in popularity, since it can be used individually to develop a single idea.

Newly constructed schools will provide for individualized instruction by providing learning carrels; remote sources for audiovisual presentations, including closed circuit television; and computer-assisted as well as computer-administered instruction.

Programmed learning will figure much more prominently in the future of general business than it did in the past. At the present time there is little programmed material available, and a mere handful of schools are using this type of instruction in general business.

Team teaching in general business is also in the future. This technique will take advantage of the talents of a group of teachers within and outside business who are able to cooperate in planning the instruction, the learning activities, and other aspects of the general business course.

"Econologues" will play an increasingly important role in developing understanding and providing for student participation. Econologues are discussions on current economic issues and topics. These econologues (dialogues on economic issues) will involve students, teachers, and representatives of the community. This new development is indicative of the trend in education today toward more community involvement in the education process. These sessions of open dialogue represent a partial answer to the demand that relevant issues be discussed. A few examples of issues and topics that have been explored are these: Learning a Living in the 1970's; The Boycott: A Way to Victory or a Lesson in Futility; The Role of the Businessman: Profit or Social Reform; The Job Market in the 1970's: Opportunities and Obstacles; The Economics and Politics of Pollution.

These open forums provide ample opportunity for viewpoints from a variety of community interests to be expressed. The most important point, however, is that one of those interest groups will be the members of the general business class.

General business teachers need to prepare themselves if they are to use the new methods, techniques, and media effectively. This can be done through additional college and university study, departmental seminars, and self-study. Any one of the teaching procedures will be effective only if the teacher thoroughly understands its purpose and use.

It appears that the role of the general business teacher of the future will be that of determining individual learning goals, arranging for a variety of materials and activities to help students achieve those goals, and arranging a learning environment in which students can become actively involved in the experiences expected to affect their behaviors.

CHAPTER 2

Consumer Economics

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During the past decade consumer education has experienced a two-stage change. The early sixties were years during which some teachers attempted to upgrade the content of consumer education courses by emphasizing macroeconomic concepts. Their objective was to relate individual actions of the consumer to the overall behavior of the economy. This was a most laudable objective; however, most consumer education teachers found it difficult to implement in such a way as to allow in-depth learning on the part of the students. There simply was not enough time in one semester of a typical junior-senior level course to do justice to such a comprehensive approach to consumer education.

During the late 1960's consumer education found itself under pressure to place more emphasis on the personal consumer economics objectives of the course because of demands from social forces in the economy. This new emphasis on the original objectives of consumer education shall be the basis for the discussion in this chapter.

THE CHANGING SOCIAL SCENE

The past decade, for the most part, fulfilled its early characterization as the "soaring sixties." The U.S. economy did indeed soar in terms of population, productivity, prices, debt, taxation, and technological developments. Accompanying this growth was the emergence of a generation of Americans conditioned to economic security, which stemmed from full employment, improved social insurance, strengthened labor contracts, and profit-sharing plans.

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One might readily conclude that the effect of economic security on consumer education has been adverse. However, recent developments have shown that the need for consumer education has become greater than ever in spite of our increased economic security. Sidney Margolius stresses this point in one of his books:

> Unions have put more money into wage earners' pockets. Through stable employment, they now are better credit risks. But while many families have more money, they are not experienced in handling it. . . . Significantly, in this comparatively prosperous period there are more personal bankruptcies, and many more involving wage earners, than in the big depression of the 1930's. In 1962, 90 percent of the 170,000 personal bankruptcies involved wage earners, compared to 35 percent of the 70,000 in 1935. . . . The fact is, most people are better trained in earning than in spending.[1]

Additional support for Margolius' thesis comes from recent legislation passed in Illinois requiring compulsory consumer education in secondary schools. The Illinois Retail Merchants' Association and bankers in the state enthusiastically supported this legislation because the business community was alarmed over high rates of bankruptcy among average and above-average income families.

In Illinois, consumer education has become general education under force of law. Consumer education has never had such support before. It has been, and in many cases still is, the dumping ground for those students who cannot function in the traditional academic courses. Most parents and educators ignored consumer education and encouraged academic course enrollment because they reasoned a college degree would lead to higher incomes which would guarantee economic security.

What was the effect of the college preparatory push on this new generation of students? Economic irresponsibility is one answer; however, something else has surfaced which has had a profound effect on consumer education. Having the economic security that was denied their parents when they were students, today's young people have directed their learning efforts toward the study of philosophies and value systems which their parents neither had the time nor means to contemplate. The result has been a new generation that has challenged "establishment" values on such matters as poverty, pollution, war, civil rights, politics, religion, and education.

THE THIRD REVOLUTION

The new generation is responsible for what the U.S. Chamber of Commerce refers to as "The Third Revolution." The following are excerpts from a slide presentation prepared for businessmen:

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[1] Margolius, Sidney. *The Consumer's Guide to Better Buying.* New York: Pocket Books, 1963. pp. 4-5.

> Restless youth (is) demanding sweeping changes in our educational and political systems. . . . Militant minorities (are) battling for social and economic change. . . . Rioting in our cities. Bombing business offices. Marches on Washington. Increasing demands to clean up our environment. Angry consumers protesting rising prices and other problems of the marketplace. Business is one of the battlegrounds of this revolution. The battle has a name: Consumerism.[2]

Consumer education is no longer the private domain of the illiterate, the poor, nor the young. These problems transcend all groups in our society. Consumer education may thus become less and less the stepchild of secondary school curriculums. What the academic community was unwilling to recognize as a need has now found support from the general public. The Vocational Education Amendments of 1968 reflect this concern by providing funds for consumer education. Consumerism is in vogue. Newspapers and magazines publish syndicated columns dealing with consumer problems. Business firms have also reacted by making a greater variety of supplementary materials available to schools in the form of booklets and visual aids.

In view of these developments, business education teachers are faced with the challenge of meeting the demand for more effective methodology in the learning processes of consumer education. Student activism as a current phenomenon will call for more student-centered learning activities in the classroom. Recent technological developments in education promise to aid us in this task.

TECHNOLOGICAL CHANGES

Along with the social changes of the sixties, consumer education teachers must also take cognizance of technological changes of the past decade that will make possible new and better approaches to teaching methodology. No longer need consumer education be bound to textbook and workbook activities with the student assuming a passive role in the learning process. Limitations in materials and equipment in the past stifled creative learning activities for the student, but technological developments now enable consumer education classes to escape from the narrow corridors of traditional methodology and out into the relevant, contemporary, and realistic approaches to learning which the new generation demands and needs.

How does technological progress aid this new teaching-learning methodology? It would be absurd to claim that the new equipment in itself has improved learning. Too many schools have such equipment gathering dust (and the ire of the taxpaying public) to sustain such an argument. We have seen television receivers and overhead projectors standing idle through most of the school year. Used solely as adjuncts to a teacher's lecture-demonstration method of teaching.

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[2] *The Consumer Revolution.* Filmstrip Script. Washington, D.C.: Chamber of Commerce of the United States, 1970, pp. 1-2.

they are not justifiable in terms of present and future needs. Students become bored with too many filmstrips and transparencies, and the same is true of other equipment that has found its way into the classrooms—opaque projectors, video tape, and cassette recorders. The problem is one of misuse and disuse. Greater learning gains result when the student as well as the teacher is allowed to make use of such equipment. Following are some examples to illustrate how student-centered and student-teacher planning methods can be combined with technological product developments to enhance the learning process and meet the needs of an activity-oriented generation of students.

METHODOLOGY TO MEET CHANGING CONTENT

One of the criticisms levied at consumer education content is that it is often outdated and meaningless to students who are concerned with present-day events and problems. Today, however, the teacher or the students can obtain current information dealing with the topic under study and reproduce it in multiple copies for distribution to all members of the class. For instance, a retail installment contract used in the community might be reproduced for use by the class. The contract itself provides no assurance that the students will have a better understanding of installment buying, but the method used by the teacher in conjunction with the instrument can facilitate learning. If the teacher stimulates student interest in installment contract clauses by citing some of the rights the signer waives when he signs such a document, student interest will be aroused in the other contract clauses and there will be a greater effort made to read, analyze, and interpret their meanings. The difference between this approach and the more traditional ones used in workbooks is that the contract is real and in current use in the community. Learning is not expected to result simply from assigning certain questions to be answered from a workbook sheet. Instead, students study the real contract, because it is precisely the type they will encounter in future business dealings in their own community.

The cassette recorder is one of the more recent technological developments that enable the teacher and students to bring new life to consumer education learning. In the past, a heavy tape recorder had to be carried to and from the school in order to obtain any interviews for class use. This discouraged the use of this equipment. Teachers were also reluctant to entrust such expensive equipment to the students for fear of damage. Today, many students have their own compact recorders and do not hesitate to use them to solicit expert opinions on current consumer problems.

Another innovation is used by Robert Bluege of Niles Township High School in Skokie, Illinois, who has made arrangements with the telephone company to have a "Spokesman" speaker installed. He is able to connect a telephone and speaker in a given classroom and thus communicate live with a businessman or other individual during the class period. Should the class be interested in knowing the current auto insurance premiums for teenage drivers, Mr. Bluege merely calls the insurance broker during the class period and is given immediate answers. The special speaker system enables the entire class to participate in the conversation, and the insurance agent can hear any questions asked by students from any part of the classroom. The rental fee for this equipment is $50 for the entire year in addition to a monthly charge of $3.75.

A piece of equipment that aids student-centered learning is the film slide projector. For example, excellent guidelines for inspecting used cars are available in book and booklet form in libraries. These inspection techniques can be acted out and photographed and then shown to the rest of the class via a film slide presentation. An imaginative teacher can think of other projects whereby the students can prepare their own slides and presentations to the class.

The overhead projector can also be used for student presentations. Material which previously required much time to illustrate on the chalkboard can be prepared outside the classroom and placed on the screen with a minimum of delay. Whereas students previously prepared bulky posterboards as visual aids in their presentations, today they can easily carry 8½" by 11" transparency sheets in their notebooks and use water soluable pens to prepare outlines or graphic illustrations. The transparencies can be used over and over by different students since they are easily cleaned with water.

The video-tape recorder, which has become more compact and less expensive, is another technological development which calls for new methodology on the part of the consumer education teacher. It can be used to tape a guest speaker in one class, and the recording can then by replayed for all other consumer education classes. Consumer education teachers can also use video-tape recordings in lieu of field trips. In the past, some teachers have taken their students to department stores to have salesmen demonstrate different features on major appliances and home furnishings. The students researched these products in consumer-sponsored magazines prior to the field trip and were expected to simulate comparative shopping techniques during the sales demonstrations. Now, instead of taking the entire class to the store, a few selected students might be sent and a video-tape recording made of their experience to show the rest of the class.

Another example illustrates how new teaching methods can be included in student-centered classroom activities in a unit on buying. The teacher, in his role as a stimulator, presents the students with the case problem of a young engaged couple attempting to buy appliances and home furnishings. Such factors as safety features on appliances, price differences, gas versus electric stoves, BTU capacities of an air conditioner, wool or continuous filament nylon in carpeting, warranties, and quality of woods are presented in short story form. The students are then asked to suggest how the couple should deal with their problems. Some students recommend consulting their parents; however, others express a need for independence and feel consultation with parents would signify a lack of maturity. Most students agree they would rather obtain the information independent of their parents, and they are ready for the teacher's suggestion that the class undertake a project to investigate the purchase of appliances and home furnishings most likely needed by young couples. The teacher asks the students to identify those appliances and home furnishings they think need to be investigated, and he proceeds to list them on the chalkboard. Individual students then select the items that interest them most and proceed with a study of the price, features, advantages, and disadvantages of these items. The students are then told where they may obtain information about the products. The teacher should have resource information available in the classroom such as consumer-sponsored periodicals and annual buying guides, books, mail-order catalogs, and a variety of brochures and pamphlets which students from previous classes may have collected in their visits to retail stores.

The purpose of this student-centered project is to have each student simulate those experiences an intelligent buyer would engage in prior to purchasing an expensive household item. At this point in the project, the teacher may outline guidelines for the information-sharing and problem-solving project. The teacher can do this by utilizing pictures in a typical report, such as one on automatic clothes washers. These pictures, taken from catalogs, newspapers, or magazines, can be mounted on 8½" by 11" sheets of paper. The price and a list of specific features of the appliances can also be included in the illustrations, which are then projected on the movie screen by means of an opaque projector. The teacher narrates the comparative information about brands, prices, and features. He explains the warranty provisions of the appliances and how the products were rated in terms of performance, durability, and economy of operation in the various consumer research periodicals.

The teacher thus sets an example for the class to follow, and the students feel more secure in preparing to present their own reports to the class. Selecting the more able students to give their reports first gives the less able students additional models to emulate plus additional time to prepare their own reports.

The facts garnered by the students for their reports are less important than the experience of working with the problem-solving process. As it has often been said, knowledge is expanding so quickly that we cannot expect students to retain all the facts. We must teach them how to utilize the scientific approach—identify the problem, determine possible solutions, gather data, test the various solutions, and finally select the best solution.

The opaque projector can also be used to illustrate students' creative work. When studying advertising, consumer education teachers emphasize the distinction between emotional and logical appeals used. The objective is to have the students recognize factual information from "puff" appeals. The teacher may show examples of actual logical and emotional appeal ads on the opaque projector; however, this gives the students little experience in working with such concepts. Giving the students an assignment to create *their own* examples of logical and emotional appeal advertisements enables them to perform creatively. The experience of creating their own advertisements is more likely to help students retain what they have learned and at the same time make them more discerning readers and users of advertisements.

Another unit of study that lends itself to student-centered methodology is budgeting. Secondary school students, for the most part, are not interested in budgeting. It carries a stigma of unpleasantness for most students, and it also seems too remote. To overcome this apathy, the teacher must stimulate interest by relating to some aspect of the students' lives which in the past may have generated anxiety family arguments, divorce, or separation. If the teacher asks the students what they think are the major causes of family arguments, money is invariably included among the causes. Further, the students are asked if they know any young couples who have found money management a problem. Several students usually are able to cite examples of careless spending by either the husband or wife of a family they have in mind. At this time, the class creates a hypothetical couple which is used to symbolize the future experiences of the students when they are married. At this point the teacher asks the students how much income the hypothetical couple should expect to have and what their expenditures will be during a one-year period. The teacher then lists the estimates on the chalkboard, soliciting as many different expenditures as possible.

With the stage set in terms of student interest, the teacher asks if the students would be interested in simulating a money management experience to see if they can effectively manage the typical income of a typical couple in the community. Enthusiasm for such a project is usually very good.

As a prelude to the actual project, students are given a description of the case problem: family size, ages of family members, debts, types of insurance coverages, savings accounts, etc. To aid the students in estimating the family's monthly income, expenditures, and savings, budget forms are issued to the students showing a variety of fixed, variable, and day-to-day expenditures and sources of income. When this project is developed on a cooperative basis, that is, involving the entire class, disagreements develop among the students concerning various costs. The teacher serves as a mediator and guide for the class, but does not impose his own estimates on the students. Most students find that their estimates of expenditures frequently exceed their incomes and thus find themselves eliminating or adjusting their expenditures.

To facilitate student estimates of clothing expenditures for the case problem, year-old mail order catalogs are made available in the class. Mail order firms are very willing to provide such catalogs when requested by the teacher. When estimating monthly grocery expenditures, the students identify typical grocery items purchased on a monthly basis and obtain assistance on prices from those members of the class who work in supermarkets as checkout clerks or stockboys. In many cases, students obtain other cost information from their parents or other adults. The net result is that the students develop a new attitude toward the financial problems their parents encounter in managing the family income.

This method illustrates a combination of teaching methods. The teacher is not merely a purveyor of information. He is a stimulator of interest in the subject and a guide who facilitates student effort toward learning which is motivated for intrinsic reasons. The method also involves student-teacher planning. The teacher does not tell the students how much they must save or how much must be spent when making estimates in the budget. The project is student-centered, the students make the decisions. The teacher acts as a resource person, suggesting ways students may obtain information or providing information on request.

THE CONSUMER EDUCATION RENAISSANCE

During the closing years of the last decade we saw a growing rebirth of interest in consumer education. This new interest has not yet taken hold in many sections of the country, and in many states, we continue to find consumer education in the status of the stepchild of the curriculum. The course is frequently used as a refuge for those students who cannot function in the traditional academic program. It has been and still is the course for slow learners, potential dropouts, and the noncollege-bound students. Few would argue that consumer education is not important for these individuals, since they are most frequently the victims of unscrupulous businessmen. However, because of the caliber of students enrolled in the course, consumer education has never earned a high level of respectability. Valid reasons can be cited for this situation. Consumer education teachers have attempted to gear the course to the needs of the majority of students in the class, and an average or above-average student finds little challenge in those activities. Enrollment in this course has usually been so small that it is not practical to group students and provide different levels of challenge. Teachers, in many cases, are inexperienced and lack the background in content as well as methodology to teach the course effectively for the average and above-average students. Where attempts have been made to upgrade the quality of the course, success has been limited. This is particularly true in trying to introduce macroeconomics as a part of the consumer education course.

MACROECONOMICS AND CONSUMER EDUCATION

During the early 1960's attempts were made to integrate macroeconomic concepts into consumer education courses. The new breed of business education teacher was better equipped to incorporate these higher level concepts into traditional consumer education courses. However, it became evident that such treatment of the subject necessitated the abandonment of some of the traditional consumer education topics of study. Time did not permit in-depth study of both the personal and macroeconomic learnings in the course. Both types of learnings might be *covered* provided the teacher utilized the lecture-demonstration methods of teaching; but relying on these teaching approaches is in conflict with the progressive methods required for today's activity-oriented student. Student-teacher planning and student-centered learning methods require time, and few schools are willing to surrender additional time to any course regardless of how much it might be justified as a necessary part of general education. Traditional academic disciplines are unwilling to allow incursions into the curriculum that threaten long-established programs and teaching positions. This dilemma is most evident in the state of Illinois which is presently serving as a microcosm of what may be expected in the remaining 49 states should the compulsory consumer education movement gain momentum and support.

THE CONSUMER EDUCATION INCURSION

Where consumer education is compulsory, as in Illinois, the academic establishment tries to relinquish as little time as possible for the program. Plans are made to implement the program so as to preserve the status quo with minimal regard to what may be best for the students. Out of this background have come a variety of consumer education programs.

The one-department approach. In order to meet the requirements of the consumer education law, some schools have decided to use the one-department approach. All students are required to take the one-department course as a graduation requirement. In some schools the course is open only to juniors and seniors and is usually taken for one semester. Other schools require all sophomores to take the course within one department, and the course may be a two-semester course. Teachers complain that sophomores are too far removed from the problems which make up the content of this course. Administrators argue that offering the course at this level affords dropouts exposure to the course and thus provides for their needs. Another problem encountered with this approach is that the department responsible for the program must hire additional teachers for consumer education, and experienced teachers are difficult to find. Frequently each teacher in the department is assigned one or two classes of the course. The disadvantage of this approach is that not all teachers in the department have the interest or background necessary to teach the course effectively. This is particularly true in business education where some teachers are more oriented and interested in teaching skill subjects.

The multidepartment approach. In other schools, the decision has been to require students to take any course in the curriculum which includes consumer education topics as required under the law. A student might meet the requirements of the law by enrolling in "Family Living" in the social science department, "Consumer Economics" in the business education department, "Home Management" in the home economics department, or "General Mathematics" in the mathematics department. This approach has the advantage of not requiring additional staff members. It also placates those departments that are reluctant to surrender time to other departments. It fosters competition between departments and enables the student to select the course or department which he favors. The problems connected with this approach are that the teachers lack the comprehensive background to teach all units of the course effectively. Mathematics teachers are comfortable teaching computation skill development in the study of credit; however, they are not comfortable in dealing with the legal aspects of an installment contract. Home economics teachers are comfortable teaching about food, clothing, and home furnishings; however, they are apprehensive about teaching credit, savings, and insurance. Having weighed these advantages and disadvantages, some schools have developed team teaching approaches to consumer education.

Team-teaching consumer education. Argo Community High School in Illinois obtained federal funds under the Vocational Education Amendments of 1968 to develop a team-teaching approach to consumer education. Under this program the course covers four 9-week quarters. Each teacher is assigned four different groups of students a year, and the students also have four different teachers during the year. Two of the four 9-week quarters are taken with business education teachers and the other quarters with a home economics teacher and a social studies teacher. In one business education quarter the students study budgeting, credit, and saving, and during the other quarter, they study advertising and life, health, auto, and property insurance. The 9-week social studies section covers such areas as economic security, investments, taxation, consumer laws, and consumer rights and responsibilities. During the home economics quarter, emphasis is placed on such units as housing, home furnishings, appliances, food, and clothing. There are obvious advantages to this program. Each teacher teaches that which he knows best. Such specialization hopefully should allow the teachers more time to develop better materials, projects, and teaching methods, while students should benefit from more variety in teachers and teaching methods.

The quarter approach to consumer education. Some schools are not willing to relinquish a full year or even one semester to consumer education. Under the law in Illinois, nine weeks is the minimum amount of time that can be devoted to the course. Following these minimum requirements, some schools have enrolled students in 9-week courses in consumer education with three weeks each devoted to credit, buying, and budgeting, the only units of study that are specifically required to be taught under the consumer education law. Needless to say, this approach does not allow ample development of other important units of study that comprise consumer education. This type of course is most likely to be found in a school system that is strongly oriented to a traditional academic program.

The eclectic approach to consumer education. Another approach used in New York and Illinois schools is to implement consumer education topics within existing courses in the curriculum. Consumer rights and responsibilities would be studied in the American government course. Credit, savings, taxation, budgeting, and insurance would be studied in the general mathematics course. Advertising and buying in turn would be studied in the English course. The problems of coordinating such a program are tremendous, and it is questionable whether or not teachers of such subjects would have the knowledge or enthusiasm to teach such topics effectively.

Weekly assembly approach to consumer education. In order not to disturb existing courses, other schools have organized weekly assembly programs that highlight consumer education topics. Guest speakers are invited to address the students, films are shown, and teachers from various departments give special presentations. Later the students are tested on the material to see how well they have absorbed the content of the course. This approach has some merit provided the students are allowed to interact with the speakers. Under most situations, the size of the student group prevents this from taking place.

METHODOLOGY TO MEET PROBABLE FUTURE CHANGES

The late sixties have been years of trial and experimentation with new concepts of education that have evolved in response to forces in our society which have voiced their disaffection with traditional school practices. Aroused members of the educational community have accepted the fact that all students do not learn in the same way, nor at the same rate. These innovators recognize that students must assume more responsibility for their own learning and emphasize practices that teach students *how to learn.* Procedures have been developed which attempt to implement this new philosophy toward learning. However awkward and imperfect they may be, flexible modular scheduling, independent study, and programmed instruction materials do offer us a means of implementing teaching-learning concepts that recognize the individuality of the learner and self-learning.

Significant success in the use of these educational innovations has been marginal. Some parents and teachers have criticized them as unfruitful and a waste of time. Such criticisms are undoubtedly valid in many cases. The problem in education is that students have been conditioned to traditional teaching-learning methods since early childhood. To change in mid-stream means to court failure. A fairer evaluation of the worth of these innovations would be possible if they were utilized in an educational system in which students are continuously and comprehensively conditioned to them from the primary grades to the senior year of high school. More success in the use of such teaching-learning practices would require the guidance and direction of teachers and administrators who understand and support these objectives.

Assuming that we are going through a period of trial and error, what is the role of consumer education methodology in this scenario? Members of Alpha Phi Chapter of Delta Pi Epsilon at Northern Illinois University have written 12 programmed instruction units, and these have been made available for free distribution to Illinois teachers through the courtesy of the Illinois Board of Vocational Education and Rehabilitation. Acceptance of this method of teaching consumer education is likely to be slow. Teachers must learn how to use the units effectively with appropriate students. The materials themselves need to be improved and undoubtedly will be as more teachers and students work with them.

Programmed instruction materials serve as an excellent adjunct to independent study. This learning tool should free the more capable student from traditional classroom attendance and enable him to use such time doing research reading in the school resource center. Programmed instruction materials may be utilized by the students at more convenient times, and they have the advantage of flexibility, allowing the student to study those areas in which he may need additional learning. Pretests could be used as a means of diagnosing the students' needs.

The independent study approach to education will undoubtedly grow as more students are conditioned to assuming responsibility for their own learning. Present concepts of teacher planning will have to be modified to include development of independent study projects for students in consumer education. Most teachers today are lecture-discussion oriented and plan their lessons for this method. Consumer education teachers of the future may spend more time in planning and writing up project learning activities. Precedents for this approach exist in office practice classes.

Office practice students simulate on-the-job experiences by means of projects developed by their teachers. Consumer education already has commercially developed games which can be used in the classroom to simulate adult-type consumer decisions. Business education professional organizations have recognized this need and have begun soliciting such teacher-prepared projects from its members in order that they may be compiled and disseminated through professional publications.

Thus far in this chapter, emphasis in teaching methodology has for the most part dealt with average and above-average students. New strides have been made and will continue to be made in developing teaching methods that recognize the needs of the slow learners. Materials have already been developed to aid handicapped learners, and commercially developed materials in the form of booklets, filmstrips, and cassette recordings are designed to aid those students with reading problems. The content of such material is written in the vernacular of the handicapped student. Such students find the material more interesting, easier to read, and easier to understand. As the average and above-average students are allowed to work independently, time will become available for teachers to give more individual attention and structure in learning activities for the below-average students. Hopefully more and more consumer education teachers will experience the joy of teaching students on a one-to-one basis. Present student program scheduling minimizes opportunities for independent study or individualized instruction. Flexible modular scheduling, as it becomes more sophisticated with the aid of computers, promises to free students and teachers in ways that will allow them to utilize their energies more profitably.

New education concepts have had their shakedown runs, and much has been learned from these experiences. The seventies portend a volatility in education equal to, if not greater than, the previous decade. Behavioral objectives and accountability are new approaches that already have been glorified and maligned by experts in education. The true picture of what results can be expected from these new educational concepts probably lies somewhere midway between the postures of exponents and critics.

It is this practitioner's opinion that behavioral objectives have a definite, positive role in consumer education. They do provide a more precise structure of objectives for both the teacher and the learner. Critics argue that this approach dehumanizes the learning experiences of the learner. This disadvantage does exist and can prostitute an effective learning environment. The problem appears to be one of balance. Behavioral objectives and accountability can improve consumer education provided they are combined with the humanistic talents that have always come from devoted professional teachers. Behavioral objectives can be utilized in the teaching-learning process, and at the same time, the teacher can and must continue to act as a stimulator, guide, and resource person for the learner. Utilization of behavioral objectives does not mean abandonment of the teacher's primary functions; it does mean that he must be more precise in the direction and use of his talents.

The opportunity for change in consumer education methodology has never been as great as it is in this decade. Support is found from heretofore quiescent segments of our society. Students, parents, businessmen, and taxpayers are demanding change. Teacher education institutions and professional teachers organizations are aware of these demands and are reacting positively to encourage change. With such momentum one must view the seventies as the decade of unprecedented opportunity and challenge for consumer educators. As a supervisor of student teachers and a frequent visitor at many schools, I am very much encouraged by what I see being done. We are improving. What we need is a greater unified commitment for changes in methodology among practitioners within our field. The walls of resistance are already falling—what will you do?

CHAPTER 3

Business Law

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Measuring popularity of a course by student enrollments would lead to the conclusion that business law is not as popular in the high schools as it should be. One educated guess as to the cause of this would certainly be the fact that business law does not meet college admission requirements for so many "academic" units of credit. As one admissions officer puts it: "No one has really defined an academic unit, but if someone did, it is doubtful that business law could qualify." Coupling this fact with the number of high school graduates going on to college, it is not surprising that other elective courses have more appeal.

Perhaps another reason for the decreasing popularity of business law is the fact that not too many business teachers find it an attractive course to teach. Teaching business law is not easy. The subject matter is technical and difficult, requiring much outside preparation. Student questions are often beyond the educational preparation of the typical business teacher to answer (a shortcoming too many teachers refuse to admit to their classes).

A third reason for the faltering interest in business law is the approach used by many teachers. Business law is not a prelaw program. A highly abstract approach only discourages students. It is not necessary to prove the respectability of business law by making it so technical as to defy understanding. The term relevance may be overused, but it is certainly not misused when applied to defining the proper approach for the teaching of business law.

As with all subjects, the teaching of business law should be done in a manner consistent with the course objectives. A perusal of textbook manuals

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published since the turn of the century shows that the objectives of business law are changing. When business law was first introduced into the comprehensive high school, its objectives were primarily vocational, the feeling being, of course, that the office worker needed a working knowledge of legal principles. With the depression of the 1930's, teachers found that teaching from the vocational approach bordered on the absurd since there were few jobs to be had. As a result, the objectives of business law turned toward applications for personal use. The personal-use objectives of business law are still dominant. However, the prosperity of the sixties brought societal objectives to the fore, that is, man's relationship to man.

This very general description is not meant to draw hard and fast lines relative to the development of business law. All three categories of objectives vocational, personal, and societal have been with business law since its introduction into the high school. The point to be made is that changes in emphasis are due to changed conditions. To ensure the relevance, and thereby the popularity, of a given course, teachers must be willing to adjust their approach to meet current trends.

CHANGING CONCEPTS AS TO SUBJECT MATTER

Business law and economic literacy. With the need for individuals to understand runaway inflation, decreased purchasing power, legislation affecting welfare and social security payments, fair employment, and so many other cogs in our economic machinery, it becomes necessary for the business law course to adopt an approach that will encourage student analysis of legal problems from an economic point of view.

What adverse effect would the failure of employers to follow fair employment practices have on the economy? The (business) law may bar discrimination in employment, but is the unfairness of such practices the only rationale for such a law? As students study the unit on employment, they should be made aware of the absolute economic waste that could result (and does result) from the failure to treat all people on the basis of their productivity.

Examples could be drawn ad infinitum on just how economic concepts might relate to business law. The business law teacher should realize this and approach the content of the course accordingly. To explain a common-law concept or statute and leave it to flounder in isolation is doing both the law and students a disservice.

Consumer legislation. No one need be reminded of the deluge of consumer protective statutes that have been and are being passed by all levels of government. Merchants are finding a shift in the old common-law maxim of *caveat emptor* to a statutory doctrine of *caveat vendor.* Students should be apprised not only of their contractual responsibilities but of their legal rights.

Some may feel that the legislative pendulum is swinging too far in the direction of protection for the consumer. It is often argued that such legislation will encourage unwise buying practices, with the consumer relying on the law to protect him from his own stupidity. To a certain extent this may be true. However, concomitant with the development of a highly complex technological society should be the increased importance of the expert's (usually the seller's) good faith. Although the consumer should still practice wise buymanship, he should not be penalized for his inability to make intelligent decisions in areas where he can be easily duped. Such is the motivation behind the consumer movement, and such should be made apparent to the student.

Ecological responsibilities. As part of the content of business law, man's relationship to man should be explored through the study of industry's responsibility for maintaining a healthy environment in which to live. By investigating the adverse environmental effects of modern production, students might better understand legislation regulating waste disposal and pollution. These laws increase the cost of doing business, and they are, therefore, quite appropriate topics for study in business law.

As a future employee, the student should understand his company's social responsibility for clean air and water. As an operator of a motor vehicle, he should be willing to share the cost of a cleaner environment through the increased prices that would have to be paid for cleaner fuels and automobiles. As a manager, it might someday be his responsibility to explain such increased prices to an irate public.

Perhaps most important of all, students of business law should realize that the failure of industry to honor such legislation would ultimately lead to the demise of a free economy. If restraint is not practiced, if responsibility is ignored, the only alternative would be nationalization of the means of production, the consequences of which would make an excellent topic for a tangential discussion in business law.

Summary. The implication in this section is not that the content ordinarily studied in the business law course should be changed. The units of study would remain the same—contract, commercial paper, sales, property, employment, etc. However, this subject matter should be presented in light of its relationship to our society—its economy and its consumers—and in the light of everyone's right to enjoy the environment and still prosper.

MOTIVATION

A motive for doing (or not doing) a particular thing is a reason for doing (or not doing) it. All behavior has reason. Much of the teacher's responsibility is to give the student reasons—to create a need—for studying a particular subject. Of course, this can always be handled by a statement to the effect that the credits are needed for graduation, but this approach is negative, and the need cited is artificial. The same might be said for motivation based upon giving tests, withholding privileges, or any device not directly related to learning the subject.

Motivation can come from the content of the course or from the method of presenting this content. For some students the subject matter of any given course is going to be so intrinsically interesting that the teacher's primary task might be simply to see that the students progress is not impeded. For instance, does anyone teach most high school students the words of popular songs? Must the athlete be badgered into learning the rules of the game? Of course not! Unfortunately, more often than not, motivation must be created through the teacher's method of presenting the subject.

Enthusiasm. The most important element of any presentation is enthusiasm. Enthusiasm is contagious. The teacher who literally glows with an interest in his subject is likely to get and keep others interested. Therefore, if one does not enjoy business law, he should not teach it. If legal concepts and their application do not excite the teacher, he should find something that does. By standing outside a classroom at the conclusion of a lesson, a person can learn for certain that the teacher's attitude does affect the students. Do the students come out rubbing their eyes and yawning, or are they chattering about the subject?

Relevance. Teachers of business law are particularly fortunate in that the relevance of their subject to the individual is fairly apparent. Motivation is fostered by constant reference to the students' personal experiences. Everyone makes hundreds of contracts over a short period of time. Virtually every young person wants to own and drive an automobile. All people have to live somewhere, have their cars repaired, and do any number of the unlimited everyday occurrences that involve a legal relationship. Because it is relevant, most students are easily excited about business law. Business law is a "now" course and should be taught accordingly.

There are certain units of study for which the relevance to students might be somewhat remote. The units of insurance, forms of business ownership, and perhaps commercial paper might be included here; therefore, it is necessary for the teacher to spend the time to make these units relevant. If the teacher cannot find the relevance of the topic, it should be dropped from the program. Inclusion of a topic in a textbook or course of study is not justification for dampening any enthusiasm the students may have.

GETTING THE STUDENT INVOLVED

On the college level, a great deal of poor teaching is accepted and explained away with the excuse that the students are intrinsically motivated. A person is in college because he wants to be there. Teaching need not be exciting because the college student is mature enough to be able to focus his attention on the dullest of subjects and presentations. Many textbooks would have the teacher believe that student involvement in class is critical only in the lower grades, that the more advanced is one's education, the less need there is for him to be actively involved in the teaching-learning process.

This is not so. It is not necessary that a thousand doctor's degrees be awarded for studies proving that learning (for retention) is stimulated by the active involvement of the student. This basic principle has been expounded by expert educators for at least 2,500 years. Business law, because of its very nature, is a reasonably easy subject to which students can personally relate. With little effort, however, the teacher can also make the study of business law just another "ho-hum" activity.

Lecture. There are times when the most efficient way of transferring the content of business law to the students is through lecture. For example, when new laws are passed or precedent-setting decisions are handed down on existing laws, it becomes important that the students be made conscious of the historical development of legal principles. However, the use of the lecture need not have a soporific effect on the class. Lectures should be well seasoned with story telling. Personal experiences of the teacher contribute tremendously to keeping the students interested. Examples of how the lecture material relates to the students' daily activity should not be avoided. Briefly, by including in the lecture situations to which the students can relate, the teacher can gain quite a reputation for himself for being a magnetic lecturer.

Discussion. A favored technique among business law teachers is that of classroom discussion. Very often, this discussion revolves around the solution to a particular case problem. Any discussion is enhanced when the participants are well prepared in the subject matter of the discussion. Applying this logic to the discussion of legal cases, it would seem that the students' analysis of the case should follow some logical design. Therefore, in preparing cases for discussion, the students might be told that there are three factors to which they must give consideration. Presented in their most logical order, these factors would include: (1) identification of the dispute between the parties, (2) application of the law relative to the particular dispute, and (3) a decision supporting one of the parties.

The teacher should be more a discussion leader than an active participant. In many business law classes, an interaction analysis matrix developed with data taken during the discussion of a case problem would reveal the teacher as dominating the scene. A simple way of handling case discussions would be to have a student volunteer offer his solution to the problem, followed by the teacher's statement, "Would anyone like to contest John's decision?" Should a contest develop, John would be given the first opportunity to respond to his adversary, after which other students would be encouraged to support one student or the other. When all new ideas on the issue have been exhausted, the teacher would cite the correct decision, tell why it is correct, and explore the consequences of applying the law inconsistent with the correct decision.

A caveat might be offered here against the religious application of a particular point of law. The teacher should be certain to elaborate on the strengths of the *incorrect* decision. Students should know that the very act of taking a case to court tells something of the validity of the opposing claims of the litigants. It should be no secret that appellate courts often reverse decisions of lower courts. Finally, the losing party (student) might be given some satisfaction in knowing that the Supreme Court of the United States is seldom unanimous on the decisions of cases it hears.

Debate. One step removed from the discussion of cases in the business law class is the debate. The debaters must be willing to research their subject. An advantage of debate in business law is that much of the material supporting or rejecting a particular point of view can be gotten from current literature. Books, magazines, and newspapers abound with controversial issues bearing upon the content of business law. The list of topical issues for debate is unlimited. A few are offered here: truth in packaging or coddling the consumer, "unsafe at any speed" or the selection of the marketplace, strict liability in tort or proof of negligence, and holder in due course or party to a wrongful deed.

The difference between using certain topics for debate or simply for classroom discussion should be the topic's social significance. There are areas in law in which most, if not all, people are directly and immediately affected. It is important that these areas be studied in the depth afforded by the debate.

Oral reports. Oral reports should not be assigned. The student giving an oral report should feel so strongly about the subject of his report that he willingly seeks out all available information to be had. Often, the students and subjects can be identified during class discussion. For example, the student who refuses to accept the decision of an actual case might be disposed to studying the text of that case at a law library or a friendly attorney's office. By giving an oral report on his findings, the student will share the rationale of the decision with his classmates—a rationale that is often lost in the single-paragraph solution of the textbook key.

Anytime a student comes to a teacher with information he has found supporting or disputing that which was taught, he should be encouraged to report his finding to the group. Oral reports need not be formally structured; they should be made to take advantage of the time and issue

Bulletin board displays. Regardless of the subject, the best advice on using the bulletin board as a teaching device is for the teacher to do it himself. In most cases, students are not qualified to determine the content of the bulletin board. Teachers often get students involved in bulletin board displays by having the students bring in newspaper or magazine articles relevant to the topic under discussion. Unfortunately, a student's good intentions may not always result in contributions of real importance. To reject the student is far worse than never to have invited him. As it is, bulletin boards with all of the verbiage inherent in newspaper and magazine articles are seldom read. Another reason for not using students in the construction of bulletin board displays is the problem of having them interpret their efforts as exploitation. If volunteers want to help, all well and good; but it is probably best to avoid appointing a bulletin board committee.

As a tool for teaching, the bulletin board serves best when used to introduce a new unit of study or to emphasize an important idea included in the unit. Headings for bulletin boards used for different units of study might include:

INTRODUCTION OF LAW:
  The Court System of the State of (____________)
  Crimes and Torts

CONTRACTS:
  Elements of a Legally Binding Agreement
  What Makes These Contracts Voidable? (Illustrations of minors making contracts, duress, fraud, etc.)
  When an offer is not an offer

COMMERCIAL PAPER:
  Kinds of Commercial Paper
  Types of Endorsements

BAILMENTS:
  Does a Bailment Exist When. . . .
  For Whose Benefit Are These Bailments Made?

SALES:
  Are These Products Merchantable?
  When Title Transfers

AGENCY AND EMPLOYMENT:
  How an Agency Is Created
  Employer's Duty to Employees

INSURANCE:
  Types of Life Insurance
  Is Your Property Covered for Loss from. . . ?

PROPERTY:
  Checklist When Buying Real Property
  Elements of a Valid Will.

During the teaching of the lesson to which the bulletin board applies, reference should be made to the display. If the bulletin board cannot be used to teach, it has no use at all.

Role-playing. It might be well to have role-playing replace the common practice of the mock trial. The use of the mock trial is important in the preparation of law students, but on the high school level the mock trial is very often a mockery. Surely the class is motivated by the expectation of performing a mock trial, but is the learning that results worthy of all of the work and preparation involved? Is it important for the students to actually practice the procedure followed by a court in the litigation of a case, or should practice be limited to those areas of concern in which students are actually expected to perform in later life?

In real life, the students will be buying goods, renting apartments, purchasing real property, and doing any number of law-related activities. Role-playing will give the student an opportunity to practice reactions he will someday be expected to make. If a courtroom scene is important to meeting the objectives of the business law class, the role-playing might include a turn on the witness stand, but practice at being an attorney, judge, or bailiff seems inconsistent with the most productive use of class time. Role-playing scenes need no script and very little preparation. This approach is compatible with real-life situations. One never knows when a shirt is going to be returned from the laundry with a hole in it, when the brakes on a new car might fail, when an offer might be accepted in haste. These things happen, and to know and be able to apply legal rights and responsibilities in such situations is important.

Current literature. Perhaps the greatest source of supplementary material for the business law teacher and his students comes from current literature. This current literature could include newspapers, magazines, books, newsletters from congressmen, reprints from the Congressional Record, materials published by all levels of government, and many similar documents. The business law teacher should prepare a scrapbook of these materials arranged according to units of study.

An added attraction to the use of current literature is the ease with which these materials can be assembled. The daily reading of a newspaper will turn up a wealth of material. Lawyers who know of the teacher's efforts in locating topical material will gladly send copies of relevant articles from the literature they receive. With very little trouble, the scrapbook can be kept right up to date.

The availability of current literature can also pose a problem to the business law teacher. Students are often encouraged (as they should be) to bring to class newspaper or magazine articles that have a bearing on the topic under discussion. Because the teacher cannot control the student's selection, he may find himself trying to give an opinion in an area in which he has no expert knowledge. Some teachers have even been known to set aside a particular day in the week as "criminal law day." The enthusiasm of the students for participation in such an activity can often put the teacher in an embarrassing position. Students are not aware of the intricacies of law and do not always respect the fact that the teacher does not have all of the answers at his fingertips. The best way to handle student contributions from current literature is to have the student present the material to the teacher before it is to be discussed by the entire class. In this way, the teacher can judge the appropriateness of the material and the degree of his particular expertise in handling class discussions based on the material. Briefly then, student contributions through related literature should be encouraged, but the teacher must be able to exercise intellectual control over the situation.

Guest speakers. The problems faced by many teachers in securing guest speakers result because they are too ambitious. If they teach in or near a state capitol, they want to invite learned judges and legislators to their classes. There is prestige in having the "director of this" or the "supervisor of that" address your class. All too often, however, their efforts end in failure and frustration.

Any community houses within its geographical limits a wealth of available speakers for the business law class. Most businessmen and professional people are more than willing to be of assistance. The goodwill they create for themselves cannot be purchased with money, and they know this. The teacher should take advantage of the situation.

The automobile or appliance dealer would probably be quite willing to speak to a class on the topic of warranties and product liability. The likelihood is that they have had firsthand experience in this area. A large store manager might be the one to discuss truth in packaging, fair trade, or weights and measures. Realtors should be available to handle discussions on leases and the transfer of real property. All these people are little more than a phone call away.

When presenting lessons dealing specifically with the social significance of the law, newspapermen or speakers from Legal Aid might be approached. A speaker from the office of consumer frauds or the Better Business Bureau could contribute immensely to an understanding of the rights and responsibilities of the student as a consumer. The list of speakers, locally available, might include: insurance men, commercial bailees, bankers, managers of trucking firms, municipal clerks, and a host of others.

At least two law schools in New Jersey, Rutgers and Seton Hall, have cooperative arrangements with local school districts whereby law students are sent into the classroom to lecture and discuss topics of legal significance. Often, hearing the same information from someone other than the regular classroom teacher makes the content more meaningful to the learner. The use of law students in the local schools has been quite successful and might be explored by others.

Student community involvement. For many of the younger set, the detached American has given way to the aware American. Such an attitude is to be encouraged, and the business law class presents an excellent vehicle for this encouragement. The fact is that young people are heard. Recently, students have been instrumental in having the voting age lowered in the election of candidates for national office. Students know that laws protecting minors are sometimes more of a hindrance than a help. The young person (minor) who is willing to accept equal treatment under the law (of minority) should be entitled to make his feelings known publicly, without fear of reprisal.

Legislation is needed with regard to the law's overprotectiveness of the holder in due course. There are cases of unfair labor practices, discrimination in public accommodations, landlords failing to keep property in repair, insurance companies dropping policyholders for little or no apparent reason, and many other unjust practices being perpetrated upon a helpless public.

The teacher of business law and his students should be very much a part of righting the wrongs of society that come within the purview of this academic discipline. Students should be praised, not punished, for demonstrating against unfair business practices. The class, or a committee of concerned students, should make a habit of writing letters to elected representatives. Scorn for local inequities should be revealed through letters to the editor of the community's newspapers. Students should be further encouraged to campaign actively for political candidates who support their point of view. Students of business law might put themselves at the disposal of the Better Business Bureau to take surveys on consumer attitudes. No one should be forced into these activities, and an individual's feelings, for or against any issue, must be respected.

A word of caution: none of the preceding is meant to excuse irresponsibility on the part of the teacher. The student, lacking the experience of his teacher, is often prone to act on emotion rather than reason. An important concept to be learned in business law is the concept of individual rights and responsibilities. Students have the right to demonstrate — peaceably. They have the right to distribute literature—without slander. It is their right to support candidates of their choice—but not to criminally violate laws duly legislated by candidates not of their choice. The democratic process can survive only so long as people are interested enough to exercise their rights while being aware of their responsibility to revere the rights of others.

NEW AND RECOMMENDED PROCEDURES

Programming. Programmed instruction is especially adaptable to the teaching of business law. Linear programs can be used for teaching terminology and basic legal concepts. The application of these concepts can be practiced through the device of branching programming. As the application of law is through legal cases, this is the form the branching program might best take. The solution to each case would be selected from multiple choice. The student would be instructed to turn to a page in the program especially designed for his particular answer. Correct answers would be rewarded, while incorrect answers would explain the error made and return the user to the case for a second try.

An illustration of the use of the branching program follows:

Case Problem

While in his minority, Young made a cash purchase of a stereo from Hart's Appliance. Six months after reaching his majority, Young sues to have the contract avoided. Hart insists that the contract stand. Decision for whom?

A. *Answer:* Decision for Young.
Reason: Contracts made during minority are voidable.
(Turn to page 21)

B. *Answer:* Decision for Young.
Reason: Contracts made during minority are void; that is, without legal effect.
(Turn to page 17)

C. *Answer:* Decision for Hart.
Reason: Young waited an unreasonable length of time after reaching majority before making his decision to have the contract set aside.
(Turn to page 26)

D. *Answer:* Decision for Hart.
Reason: A stereo is a necessary, and contracts made by minors for necessaries are binding.
(Turn to page 14)

The correct answer to this problem is "C." When the student selecting this answer turns to page 26, he will be immediately and positively reinforced (rewarded) for his selection of the correct answer. Page 26 would also include, as a review, an explanation as to why answer "C" is correct. In this case, the student might be reminded that if the law allowed avoidance after an unreasonable length of time, it could work an undue hardship on the merchant caused by the inability to resell the used merchandise. After reading the review material, the student is instructed to turn to the page which presents the next case.

A student who selects answer "B" would be referred to page 17. Page 17 would notify him immediately that his answer is incorrect. An explanation might include a brief discussion on the difference between the void and voidable contract. At the conclusion of the explanation, the student would be given instructions to return to the page on which the problem appeared and make another try at its solution. Notice that the student cannot progress through the program unless he selects the correct answer to each case. It should also be noticed that the student is placed in a situation where he is able to learn from his mistakes.

Because of the manner in which a user of the program advances, this type of program is often referred to as a "scrambled book": the learner does not work through the program following a sequential order of pages, but "scrambles" through the program dependent upon his selection of answers. As with any program, the scrambled book can be easily computerized, thereby increasing student motivation by the uniqueness of the medium and an interdisciplinary approach.

The teaching module. *What* a student must learn in a particular course should be for the teacher to decide. *How* the student learns should be for him to decide. The teacher's job should be to develop a store of learning resources applicable to the different units (modules) to be learned in business law. The resources might include programmed materials, textbooks and other literature, films, filmstrips, audio and video tapes, and the teacher himself.

With the exception of the unit on contracts having to be taught first, the sequence of the presentation of the different units of study in business law is not critical. A good plan would be to have the class members study the unit on contracts together, after which each student would be free to select the unit of study he chooses to pursue next. Study guides would be prepared for each unit. These study guides would tell the student the objectives, in behavioral terms, of the particular unit he is about to study. For each behavioral objective, the student would be given direction as to all of the resources available for accomplishing that objective. The student would work individually and at his own speed. When he feels competent enough in the subject matter, he will take the unit test. Upon satisfactory completion of the test, the student may move on to another unit of his choice.

Under this system the teacher's time is spent in working individually with students to solve problems that may arise. The teacher is also constantly seeking out new materials to add to his file of resources. The study guides are being revised continually. Another chore of the teacher is to examine and improve the evaluative devices being used to measure the degree to which students are achieving the objectives.

It is being found in those school districts using an approach based upon individualized instruction that learning is maximized and the need for disciplining students is minimized. In short, the teacher can spend his time improving the learning environment rather than trying to create such an environment.

TESTING AND EVALUATION

One should take special note that the heading of this section is testing *and evaluation.* The problem with many teaching-learning situations is that testing is merely testing and has little to do with individual evaluation. To evaluate a student is to judge how well he has been able to meet the objectives of a course, and hopefully, suggest ways for improvement. Often, little thought is given to the relationship between the test and the objectives to be accomplished. There is little reason for a teacher of business law not to have adequate objectives stated in behavioral terms nor to want for sound items to be used in the testing of those objectives.

Learning in business law can be broken down into two facets. First, the student must learn legal principles. Second, the student must be able to apply these legal principles to the solution of legal problems. Testing in business law should give consideration to these two areas of learning.

The testing of a student's knowledge of legal principles can best be done through objective-type questions. These objective questions include selection (multiple-choice, true-false, or yes-no) or completion (fill-in) questions. The reason for using this type of question is that it can give a great deal of coverage in a short period of time. A good sampling of the information to be learned in any chapter of a business law text can be gotten from a series of 15 to 20 objective-type questions. Too, the use of the objective question serves well for the administration of short, frequent quizzes.

In order to test the student's ability to apply the legal principles he has learned, he must be given an opportunity to solve legal case problems. Case problems for testing can be gotten from textbook publishers, extracted from adjudicated cases, or simply made up by the teacher. The important thing is that the student is made to decide the case and to supply the legal principle supporting his decision. The amount of subject matter that can be covered through the use of the case problem test is limited because of the time required to solve each individual case. For this reason, case problems might best be limited to unit tests, with a part of the test including objective-type questions. The case problems would be used to test knowledge of *the most important* principles studied in the unit.

The construction, administration, and grading of the test should not be the termination of the learning process. As mentioned earlier, the test should be used as the tool for discovering student weaknesses. Every question on a test should be there for the purpose of measuring how well any student was able to meet the objectives of the course. For each question, the teacher's key to the test should include available resources to which the student missing the question might be directed so that his error can be corrected. Why bother with objectives unless the ultimate objective is to see that the course objectives are met?

Upon grading a student's paper, the teacher should prepare an item analysis of each incorrect answer. The student should then be supplied with a study guide directing him to materials to be used in correcting his misconceptions. After the student has restudied the material, he should be retested in those areas where improvement is needed. If the student scores well in the retest, he should be graded accordingly. If he does not score well, the process should be repeated. Eventually, all students should reach the level of attainment required of them for satisfactory completion of the course. Under a conventional grading system, this means that most students will be earning "A's" and "B's". Should it be any other way?

Because of limited space, this section has dealt with evaluation only as it relates to a testing program. In practice, other evaluative criteria could, and should, be used. Additional instruments for student evaluation might include term papers, performance in debates, oral reports, community involvement activities, class performance, anecdotal records, and others. The important thing to remember is that the device being used must be capable of measurement.

THE FUTURE

The study of business law should take on increasingly greater importance in the future. The rationale for this statement is rooted in the current extent of government involvement in consumer and business affairs and the implication for even greater involvement.

Massive technological growth and sophisticated marketing methods have made it imperative for all levels of government to see to it that the consumer interest is protected. It is difficult to conceive just what the future will bring. It can, however, be expected that new and improved products and merchandising techniques will make many existing means of production and recordkeeping virtually obsolete. An awareness of one's legal rights and responsibilities in this new economy will be critical. Witness, for example, the apparent demise of the use of cash, with the concomitant responsibility of creditors to keep accurate records and the importance of the consumer's right to examine those records.

The rapidity with which new legislation is being passed makes it an absolute must for the business law teacher to stay abreast of the field. Precedent-setting cases are being adjudicated almost daily, especially in the area of warranty and product liability. The validity of the class-action suit is still being disputed in many states, but the existence of such a legal device might have implications for every single student in the business law class.

Because there is so much to be learned initially and because new knowledge is being added in volumes, it has become necessary for the business law teacher to assume the role of the specialist. It is not enough that, incidental to the social business teaching certificate, the teacher is qualified to teach business law. Certification for teaching business law should be awarded by special endorsement. In addition to a two- or three-credit methods course, the teacher of business law should also have at least 18 credit hours of content courses. These 18 hours might include courses in:

Legal Reasoning
The Law and Society
Contracts
Commercial Paper
Sales
Uniform Commercial Code (in addition to other courses covered by the Code)
Property (real and personal)
Tenant/Landlord
How To Find the Law.

As the trend toward individualized instruction continues, the business law teacher should become as much the resource person as the teacher. Much of his job should be in locating recent developments and making the information available to his students. It is for this reason that a course in how to find the law is suggested for the business law teacher.

A final thought. An idea gaining a great deal of popularity in the legal profession is the preparation of paralegal aides. These aides are trained in the law and in legal research. Their job is to assist the lawyer with the legwork necessary for the preparation of a case. For the most part, this training is now gotten in a few special schools designed for the sole purpose of preparing paralegal aides. At this time, a small number of community colleges are considering the adoption of such a program. There is no reason why the comprehensive high school could not be used to introduce this type of work to its students. Just as the secretarial student is acquainted with legal secretarial work, so should the business law student become familiar with the work and requirements of the paralegal aide.

In summary it might be said that law is not *a* moving force within our society, it is *the* moving force. Respect for the principles of law and a knowledge of one's rights and responsibilities under the law can be developed through dynamic and enthusiastic teaching of the subject. Above all, the business law teacher should not be afraid to try the untried. A teacher's greatest failure is his failure to stride.

CHAPTER 4

Business Principles and Management

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When business principles and management is offered at the secondary school level, it is sometimes taught at grade 11, but most frequently at grade 12. In most schools the course is designed as a comprehensive body of subject matter which integrates the content of all the other general business subjects. It includes those aspects of business opportunities, management principles, operational principles, and financial principles that are essential in both small and large business organizations.

Originally the course was taught as a purely vocational subject for those who were interested in employment in family-owned or other small businesses after graduation from high school. In recent years, however, the objectives of the course have been broadened to include general educational values and prevocational aims as well.

During recent decades, labor-management relations have had a significant impact on the American economic scene, and every American who is employed is affected directly or indirectly by events that occur in the business world. As a result, business principles and management is now considered to have personal-use values. It is now also taken as a preparatory course by college-bound students who plan to major in business administration. The course provides a general knowledge of the field of management and prepares the learner to select a field of specialization more intelligently.

The business principles and management course in the secondary schools today, therefore, has value for the following groups of learners: (1) prospective proprietors of small business organizations, (2) those who are exploring the possibility of a career in the managerial occupations, and (3) every prospective

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employee in the American labor force. The following topics broadly summarize the content of the course as it has been taught in recent years: how business is organized, owned, and managed; government regulation of business; proprietary problems of the small business owner; and career opportunities in the managerial occupations.

WHY METHODOLOGY CHANGES ARE NEEDED

Business management must play a far greater, and more diverse, role in American society today than ever before. It must assume the systematic role of communication center, decision center, and change agent. In these capacities, management derives its power more from competent performance than from legal rights. Concomitant with its economic functions, management has a social role which establishes responsibilities to facilitate human progress. Management must seek to cultivate social values, to develop each person to his maximum potential, and to encourage cooperative systems that permit optimum free choice and rational means for value determination.

Recent technological and social changes in America and throughout the world are rapidly accelerating the responsibilities of management personnel in business organizations. These new and varied responsibilities necessitate educational changes in content and methodology in the preparation of future managers and owners of American business organizations.

Technological developments. The electronic computer has had a significant impact on the management of American business. Most large organizations have their own installations, and small businesses have computer service bureaus available to process data on a contract basis. Among the resultant changes affecting management are an increase in the amount of information available for decision making; improved methods of data storage, transmission, and retrieval; and ever faster communication devices and methods.

Social developments. Prodded by government requirements, community pressures, consumer dissatisfaction, and image considerations, the business community is becoming more involved with social problems. Management has become increasingly concerned with employment of the hard-core unemployed, black economic development, environment and pollution, union attitudes toward minorities, supervisory training for handling social problems, vocational-technical education for school dropouts, and educational innovations.

Curricular changes. The content of the business principles and management course in the secondary school has been greatly affected by recent social and technological developments. The moral responsibility of business to aid in the solution of contemporary social problems has become an important segment of the course content. The utilization of management information and the development of management information systems also need coverage in depth.

Even more revolutionary than the changes needed in course content are the changes needed in methodology. The business community must become the business principles and management classroom. The teacher must become a "remover of roadblocks" instead of a "dispenser of knowledge." The textbook of the past must become a reference tool, and it should be used as a guide instead of a crutch. The objectives of the course must be kept flexible so that maximum provision can be made for individualized learning. The subject matter content must have relevancy and value for the learner because most learners sense the meaningful and censor the irrelevant.

METHODOLOGY TO MEET EMERGING CHANGES

Student unrest and dissatisfaction at the secondary school level has been frequently attributed to (1) irrelevant subject matter, (2) lack of learner involvement in course planning, and (3) insufficient contact between the teacher and the learner. These are problems that can be solved rather easily, but the solutions call for a break with tradition in planning course content and methods of instruction.

Relevant subject matter. Meaningful learning assignments should be based upon the needs, interests, and abilities of the learners. Alternative assignments should be provided, and each individual should be permitted to select those which are compatible to his learning objectives. Class discussions which incorporate textbook material, but which emphasize current developments in the business world, tend to make subject matter both interesting and relevant to the learner. Opportunity for the learner to ask questions must be provided, and he should be encouraged to use his own experiences as a basis for participation in group discussions.

Learner involvement in planning. Learners can become involved in course planning through the utilization of a classroom suggestion box similar to that used in many business organizations. After the class has been exposed to an introductory unit, the members should be urged to make suggestions for improvement of classroom teaching-learning procedures and shifts in emphasis regarding subject matter coverage. The suggestions which recur frequently should be put into effect as soon as practicable. This type of learner involvement in course planning enables the learner to evaluate his own ideas as they are implemented. Some suggestions may prove to be a disappointment to members of the group when they are put into effect, but more often there will be increased learner interest in the course because of the contributor's involvement in planning and organization.

The use of organized committees and small discussion groups results in vastly increased opportunities for student involvement in planning the learning activities. Every committee member participates in investigating and data-gathering activities, organizing and analyzing activities, and reporting activities. Oral presentation of committee findings may be in the nature of skits, debates, panel discussions, or some other form, limited only by the imagination of the members of the group or committee.

Teacher-learner contact. Three types of business competencies which are of extremely high value to management personnel in their work are (1) communication, (2) problem analysis, and (3) human relations. The development of such competencies requires a great deal of contact between the teacher and the learner.

Communication. Some written communication should be required throughout all business courses. To assign a written project which will result in either a last-minute rush to meet a deadline or a hurried job, however, is a questionable procedure. Therefore, some scheduling of written work throughout the course is desirable. A worthwhile assignment should involve logical thinking, clear and organized expression of that thinking, empathy, and proper punctuation, grammar, and spelling. The effort should consist of a first draft, revision of the initial effort, and a final draft.

When written communication is required, topics should be carefully selected. Role-playing is suggested to make the effort as realistic as possible. Cases will provide excellent problem material for written assignments. The nature of the assignment should be specific so that analytical thinking is required. Probable readers should be identified because empathy ~~in writing~~ is not possible if the writer does not have a definite reader or group of readers in mind.

Evaluation of written communication in business subjects is perhaps best accomplished by separate grades on content and mechanics of writing. The mechanics can sometimes be bad enough to destroy meaning; if so, the learner should be so informed. It is desirable that more than one person be involved in the evaluation process. Class members can benefit from reading critically the composition of other learners. At least once during the semester the learner should be required to rewrite a paper completed a month or two earlier.

Problem analysis. Few problems in business concern a single, simple issue. In fact, by the time a business problem becomes apparent, it usually represents a rather complex collection of factors. Business operates in the midst of rapidly changing scenes in a highly competitive world. Thus the process of problem analysis cannot always follow the methodical methods of a scientist. Many decisions must be made before all of the facts are available. Although it may take 30 years to develop the ability to make sound business judgments, some introduction to this particular competence is possible in an academic atmosphere.

How do people learn to dissect a complex problem, find the key issue involved, and determine the "best" solution? The case method of teaching seems to offer the best potential for the maximum learning achievement. The learner who works with a business case works, to some extent, with a small segment of a real-life problem. The facts given in a case problem may be inadequate and incomplete, but unless the case has been weakened to demonstrate a single textbook point, the learner goes through some of the mental processes of business analysis.

Teaching by the case method calls for skills not identical with those utilized in the lecture or recitation methods of instruction. Class participation is a necessity. The learner must develop an ability to assign priorities to problems. There is not often one single answer as to the course of action to be recommended. The instructor must encourage the learner to identify alternate possible solutions. This calls for the quality of mental flexibility, a basic competence that should be developed in secondary school courses in business principles and management.

Human relations. Perhaps the greatest problem area of business management is human relations. It is considered by many people today to be the single most important area of business competence. Authoritarian management is rapidly disappearing from the business scene. All management personnel who work with other people must possess some competence in human relations.

Human relations competence, like problem analysis, is an area in which the learning process must be continual. It is a competence that can always be more fully developed. The portion of human relations competence which can be taught in business principles and management at the secondary school level is, of course, limited. It is most important, however, to develop human relations competence in the actual process of *learning for use.* It is thus an introduction to aspects of the business world that will be of help in later learning from experience. Although the topic should be covered in depth in a special unit, human relations should be a subject of comment and demonstration throughout every unit covered in business principles and management.

PRELIMINARY PLANNING AND COURSE ORGANIZATION

It is highly desirable to *preplan* (before course instruction begins) the business principles and management course on the basis of the amount of time available for instruction. In some schools the course is taught for a full school year, but it is more frequently taught as a one-semester course. Although the amount of time available will determine the depth of coverage of each of the units to be taught, it appears logical that the following units should receive some emphasis in the course: (1) the American business and economic system, (2) types and methods of business organization, (3) production management, (4) marketing operations and management, (5) purchasing operations and management, (6) financial operations and management, (7) information systems and records management, (8) personnel management and human relations, (9) government taxation and regulation of business, (10) other management problems (physical facilities, office operations, shipping and transportation problems, and research and development), (11) social responsibilities of business, and (12) planning a career in business. The amount of time allocated to each unit will depend upon such factors as: (1) the enthusiasm and ability of the teacher; (2) the needs, interests, and abilities of the learners; and (3) the educational materials, physical facilities, and community resources available for teaching-learning purposes.

After the general course objectives and content have been determined and time allocations have been made for each unit to be covered, the instructor should determine the most appropriate materials to use for *each unit* to be covered and the teaching methodology that will result in achievement of the objectives set forth for each unit. Numerous free and inexpensive materials are available from many sources (business and government) which will supplement and update a chosen textbook or replace a textbook completely if the content of the unit(s) is inadequate to meet the objectives. All such materials should be gathered prior to planning the instruction for any of the units to be taught. The materials to be used for each unit and the objectives set forth for each unit should serve as the basis for choosing the appropriate teaching methods. In order to stimulate and maintain interest in the course, the instructor should vary the methodology as much as possible. Perhaps films are more appropriate for some units than for others. Perhaps some units lend themselves better to committee research and oral reports (individual or group) than do other units. Perhaps speakers can contribute more to some units than to others. Field trips, of course, are of more value when they take place at a time when they best correlate with the unit being studied by the learners. Consequently, it is desirable to determine prior to the first day of course instruction those teaching-learning methods most appropriate for each of the units to be covered. The utilization of a variety of teaching methods that result from such planning will lead to more learner interest and greater learner achievement than if there is less variety in the methods used and *overuse* of what may otherwise be excellent teaching techniques.

THE UNIT PLAN OF INSTRUCTION

The business principles and management course at the secondary level can be successfully taught by using the unit plan of instruction. In order to obtain maximum learning results throughout the course, the various units should be completely preplanned before beginning to teach each particular unit. The unit lesson plan should encompass the objectives of the unit, a unit pretest, individual and group projects, unit bulletin board materials and plans, a bibliography of supplementary sources of information, an annotated bibliography of audiovisual aids, daily lesson plans, and evaluation instruments.

Unit objectives. Each unit objective should be stated in terms of performance goals. In order to measure the degree of attainment of expected learning outcomes, each objective must identify some type of human behavior in words which have specific meanings. "To know," "to understand," and "to appreciate" are vague and indefinite. To most people they are completely meaningless. Words which are open to fewer interpretations are "to write," "to construct," "to compare," "to contrast," and "to solve." Meaningful statements of behavioral objectives, thus constructed, provide the instructor with appropriate planning guides and a proper sense of direction.

Statements of objectives should include *all intended* learning outcomes, whether they are related to subject matter content or not. When this has been accomplished, the instructor will have a sound basis for selecting the learning experiences to include in a unit. Only after the instructor has carefully prepared objectives that can be measured in terms of performance goals can he prepare *appropriate and adequate* evaluation instruments by which to measure the learning that has taken place.

The unit pretest. At the beginning of a unit, it is an excellent procedure for the instructor to determine the extent of the knowledge, skills, and abilities or the attitudes, understandings, and concepts possessed by each learner in the class concerning the topic to be studied. This is extremely important if the instructor is to provide for individual differences in accordance with the needs, interests, and abilities of the learners. Much of the criticism of business subjects has been that the content is too elementary and that the subject matter lacks challenge. Good pretests, properly used, can help to alleviate this problem. Pretests may be oral or written; they may be informational or attitudinal.

The oral pretest may be a discussion that will give the teacher an idea of the general class ability or knowledge pertaining to the unit. It may be a game (vocabulary bee) or it may be a simulated real-life skit (unrehearsed sociodrama) involving a business management situation.

The written pretest, which is perhaps far more often used than the oral pretest, has the advantage of giving the teacher more information about every learner in the class. Information pretests may include basic and relevant factual information and knowledge in either objective or subjective test form. Since the test *must* be checked immediately if it is to serve its intended purpose, objective type items are perhaps preferable. The learners should be informed that the pretest will not be used for grading purposes. The results of the pretest may be used by the instructor to plan class activities, to motivate class discussion, or to determine learning progress. If the pretest is to be used to measure learning achievement, it may be incorporated (wholly or partly) in a test administered at the end of the unit. The written pretest may also be used at the conclusion of the unit for self-evaluation by the learner.

Attitude inventories, when used as pretests, can often serve as motivation devices to stimulate discussion of issues in the classroom. If the learner is asked to "agree" or "disagree" with a number of controversial issues pertaining to business management, he is often eager to defend his thinking if it is challenged by others with opposing viewpoints. Instructors who wish to use the pretest for this purpose should tally the responses to the various items immediately after the pretest has been taken by asking for a show of hands to indicate agreement and disagreement with each item. Time may not permit discussion of all items where there is disagreement; if not, only those items where substantial disagreement exists may be discussed. When the attitude inventory technique is used in a business principles and management course for discussion purposes, the instructor can usually be assured that the learners will be exposed to the thinking on both sides of most controversial issues. The instructor need not, and should not, attempt to come up with "the right answer" when controversial issues are involved; it is his obligation to be sure that all points of view have been expressed.

Individual and committee projects. Educators have long accepted the principle of provision for individual differences in education, but there has been failure to provide adequate and proper instruction for the average learner as well as for the gifted learner and the slow learner. The secondary school business principles and management instructor is likely to find a wide range in the needs, interests, and abilities of the learners in his classroom.

Although there is a need for some common daily assignments for all members of the business principles and management class, each learner should be given some opportunity to choose from a list of alternative assignments the one which is best suited to his needs, interests, and abilities and in accordance with his career objectives. Such individual projects might involve a small research project in the business community, an oral report to the class, an interview with a business or government official, an observation, a demonstration, or any one of a number of other activities which are deemed suitable by the learner and the instructor. There is the advantage of more permanent learning resulting from such realistic assignments because they bring together otherwise unrelated factual information into one "doing" activity. Research studies in education have shown that "doing" activities result in more permanent learning than other types of learning activities.

All learners must realize the importance of working together as members of a group. This is especially important in business management activities because each business organization produces in direct ratio to the combined efforts of its employees working toward the same goal. If the business principles and management instructor can motivate each learner to contribute properly to a small group, the committee can be an effective teaching tool. The instructor should plan carefully a number of alternative group assignments from which each learner can choose one in accordance with his interests. Committee membership should be kept small in order that each learner has sufficient responsibility. Then, too, shy learners are more willing to take part in the committee's work. In order that committees may achieve the results and benefits which should accrue from that type of assignment, the projects should be broad enough in scope to encompass the major portion of the unit being studied. The committee assignment thus brings together, in a way different from the individual project, otherwise unrelated factual information into a "doing" activity.

Bulletin boards. It is important that up-to-date information be used in the business principles and management course. Current news items and pictures help to make the course realistic. In addition, business organizations and government agencies publish pamphlets, advertisements, and brochures which contain current information, charts, graphs, diagrams, illustrations, and samples.

The first step in the planning of an appropriate unit bulletin board is the determination of the desired learning outcomes to be derived from the display. The types of materials most appropriate for achieving the desired learning outcomes should then be specified, and a theme or topic for the display should be selected. Student assistance should be utilized in gathering appropriate materials. The entire class could be assigned that responsibility for the entire course, but it is usually true that the responsibility of all becomes the responsibility of none. Therefore, it is perhaps preferable to have a bulletin board committee composed of from three to five members for each unit.

Each student should understand that he is responsible for evaluating the appropriateness of the materials he collects. He may be instructed to (a) underline significant statements in the materials he collects *or* (b) submit with the material a concise statement of its significance. The instructor and the committee should then evaluate the materials submitted and select those that are most appropriate. A student committee should be responsible for the arrangement of the materials to be displayed on the bulletin board.

The materials displayed on a unit bulletin board should be studied or discussed in connection with the regular classroom activities. The teacher may weave the bulletin board materials into the classroom discussion at the appropriate time(s), or students may be responsible for giving brief reports to the class on the significance of the items they contributed.

Resource bibliography. If the instructor is to make use of the countless materials available in the field of business organization and management, he must be an avid reader of a variety of current periodicals and newspapers. The *Wall Street Journal, U.S. News & World Report, Business Week, Nation's Business,* and *Fortune* should be among the publications read regularly. The instructor must be on the lookout for new books, pamphlets, and monographs on a variety of business management topics.

In order that current materials can be used efficiently, the business principles and management instructor should construct a separate resource bibliography for each unit covered in the course. Sources should be listed under appropriate classifications such as books, magazine articles, free and inexpensive materials, newspaper clippings, and similar suitable headings. If these steps are taken, the instructor will have available a handy reference list of supplementary materials for each unit in the course. Newspaper clippings should be attached to 8½" by 11" sheets of paper and filed in folders appropriately labeled.

Audiovisual aids. Numerous films, filmstrips, transparencies, and other visual aids concerning business organization and business management are available from producers, distributors, and publishers of educational materials. It is a time-saving and efficient practice for the instructor to construct and maintain a separate audiovisual aids bibliography for each unit taught in business principles and management. If the information is available, a brief description of the contents (40-60 words) should be included with each audiovisual aid listed. The complete address of the source from which the material can be obtained should also be included with the description.

Daily lesson plans. Although it is not desirable to make detailed daily lesson plans, some preplanning for each day's lesson should be done in advance of the first day's lesson for each unit. This is necessary if a sufficient amount of time is to be provided for the various topics to be covered in each unit.

Specific behavioral objectives for each class period should be identified. These objectives should be based upon the objectives set forth in the unit lesson plan previously described. The specific procedures or activities to be used each day should be identified in logical order for classroom presentation. The amount of time that each activity will consume should be estimated. Every effort should be made to vary the activities as much as possible from day to day throughout the unit as well as within each class period in order to reduce the possibility of boredom and restlessness on the part of those learners with short attention spans. Each daily lesson plan should include either a specific assignment for the next class period or a reminder of assignments previously made, such as individual projects or committee work.

Evaluation procedures. Achievement in business principles and management must be measured in various ways in order to get a reasonably accurate picture of the degree of achievement. Just as in the selection of teaching methods and techniques, the instructor should choose those evaluative devices that are appropriate to him, to his students, and to the situation. Foundational learnings can be evaluated through written tests to measure recall of facts and information and understanding of vocabulary. Evaluation of understandings and appreciations may be achieved through written tests, observation of the learners at work, written or oral reports, and class discussion. Evaluation of attitudes is the most difficult type of evaluation because changes in behavior usually occur over a longer period of time than the length of any course. It is difficult to determine whether these changes occur as a result of the study of the unit, from outside influences, or both. Changes in attitudes can be measured by administering an attitude inventory twice at the beginning of the course and again upon its termination. The teacher must use his best judgment in deciding the value to be placed on this phase of the evaluation.

THE MANAGEMENT SIMULATION PLAN OF INSTRUCTION

The management simulation plan of instruction is becoming increasingly popular in teaching business principles and management in secondary schools. Through participation in business management simulation activities, the learner experiences many aspects of management which he would not experience by simply reading a textbook. Most of the course's simulation plans are put into operation upon completion of the introductory unit.

Sole-proprietorship organization simulation. After a brief discussion of the kinds of businesses that are frequently operated as sole-proprietorships, each learner in the class can be instructed to plan the organization of a small business of his choice. Among the problems to be solved and the decisions to be made by each learner are the following: (1) personal qualifications and knowledge needed for success in the operation of the business; (2) location and layout of the facilities and equipment needs; (3) capital needed for financing the business and the possible sources of that capital; (4) marketing of the goods or services to be provided; (5) setting up and maintaining financial records of the organization; (6) taxation, legal, and insurance problems; (7) credit extension and collection problems; (8) personnel requirements and personnel policies; (9) advertising, selling, and public relations problems; (10) other organization and management problems peculiar to the particular business being organized. The class should be encouraged to use their business principles and management textbook and other appropriate sources *as references.*

After each member of the class has completed the organization of his sole-proprietorship, he should present his plan to the class. The class can then identify factors which may have been overlooked, and the organization plan should be subjectively evaluated by the group. This is an appropriate time to invite to the class the owner of a local business to discuss problems encountered by the learners in the completion of their business organization project and to answer questions which were motivated by the project.

Partnership organization simulation. Following a discussion of the partnership form of business organization, the class members can be instructed to simulate the organization of partnerships. Partnerships may be formed by mergers of the previously organized sole-proprietorships. It is preferable to have only two or three class members working together in the organization of each partnership. Each learner has a greater opportunity to share more fully in every step involved in the partnership organization process than if larger groups are working together. A great deal of freedom should be permitted the class members in deciding who their partner(s) will be. The project should commence after the class has had sufficient discussion of the advantages and disadvantages of partnerships, the kinds of businesses suited to the partnership form of organization, the obligations of the partners, and the partnership agreement.

Consideration should be given to the same factors identified in the sole-proprietorship organization plan when the learners organize their partnerships. In addition to those factors, special attention must be given to the writing of the articles of copartnership, and of course, a name should be selected for the partnership. The textbook should again be used as a *reference* when information is needed. After each partnership organization plan has been completed, the "partners" should present it to the class for analysis and evaluation. The special problems encountered in the dissolution of partnerships must not be overlooked; the procedures involved in terminating each of the "partnerships" should be outlined by the "partners" to conclude the study of partnership organization.

Corporation organization and management simulation. A number of alternatives exist for simulating corporations in business principles and management classes in the secondary schools. If the class is large enough, it may be desirable to organize two corporations—one selling an article such as school stationery, school pennants, or candy; the other selling a service such as car-washing, book-covering, or duplicating. If it appears preferable to organize only one corporation, perhaps the business might be engaged in the selling of more than one product or service. This would make it possible for one division of the corporation to compete with another division in making the largest amount of profits for the organization. In still other classes, it may be wise to organize only one corporation to sell only one product or service. Where only one corporation and only one product or service are involved, however, the motivating factor of competition is eliminated.

Among the problems to be solved and the activities to be included in a corporation organization and management simulation project are the following: (1) determination of the life of the corporation; (2) determination of the amount of capital needed to begin the business and the number and value of the shares of stock to be sold to raise the capital (the value should be kept nominal—from 10 cents to 25 cents per share so that everyone in the class can participate); (3) decision about whether the corporation should be "publicly owned" by selling shares to the entire student body and faculty; (4) application for a charter and the writing of the Certificate of Incorporation; (5) duplication of stock certificates and selling of the stock (provision should be made for resale of stock from one student to another at any price the market will allow); (6) recording the selling and transfers of stock; (7) election of a board of directors; (8) establishment of the internal organization (this might involve departments or functions as administration, finance, personnel, production, distribution, sales, advertising, purchasing, accounting, office services, and public relations); (9) establishment of a communication system for informing stockholders through bulletins and periodical financial statements; (10) declaration of a dividend or informing the stockholders of the reason for not declaring a dividend; and (11) repurchase of stock at book value to dissolve the business.

The corporation organization and management simulation project can be used as the principal instructional method throughout the remainder of the course once the plan is put into operation. No textbook is actually needed;

however, a variety of appropriate reference materials should be made available in the classroom. If a textbook is chosen for the course, it should serve only as a reference book for the learners to consult whenever questions need to be answered, problems need to be solved, or decisions need to be made.

Perhaps it is not feasible to attempt to simulate corporate mergers and consolidations, holding companies, the various types of cooperatives, and mutual companies in a secondary school business principles and management course *in addition* to the project outlined above. However, all such projects are possibilities in lieu of the more common plan described. Each of those plans of organization should receive adequate coverage through individual or committee projects and class discussion.

The Junior Achievement plan. Some business principles and management instructors may prefer to follow the Junior Achievement plan established by the Junior Chamber of Commerce. Each company that is organized under this plan is composed of from 15 to 20 members between the ages of 15 and 21 who meet for approximately two hours weekly to conduct their business operations. The group decides what kind of business they want to engage in, organize the company, elect officers, and sell stock. They manufacture a product and sell it, pay rent for their work space, pay wages to those who spend their time working for the company, pay dividends to the shareholders, and liquidate the business at the end of the school year. Other activities conducted by the organization include publication of newspapers and magazines, operation of model agencies, conducting polls and surveys, and making market analyses. Each Junior Achievement company is sponsored locally by some industrial or commercial firm. The primary objective is to teach the participants through experience how businesses are operated.

The stock market investment project. Simulating an investment in the stock market is an individualized long-term project which has tremendous motivation value for most learners enrolled in a business principles and management course. It is desirable that this project be instituted very early in the course and be continued as long as possible because an adequate understanding of the impact of social, economic, technological, and political events on individual businesses and industrial groups cannot be acquired in one or two months of study. Perhaps the best "textbook" to be used for a project of this kind is the *Wall Street Journal.*

Each member of the class should begin the project with the selection of his investment portfolio. It is recommended that about five stocks be chosen from those listed on an organized stock exchange preferably the New York Stock Exchange. Each learner should be instructed to determine the number of shares of each stock he can purchase, based upon a total investment of $1,000. The daily New York Stock Exchange price quotations in the *Wall Street Journal* are an excellent source for the learner to consult when he makes his portfolio selections and records the prices at which he is "buying" his stocks. When he has made his selections, he should record the following information: (1) the date of "purchase" and the closing price for each stock for that date; (2) the amount invested in each of the five stocks; (3) the total amount invested; (4) the business activities and financial status of each of the companies chosen (among the common sources for this type of information are Standard and Poor's stock guide, stock brokerage firm research analysis sheets, and company annual reports); and (5) the reason(s) for selecting each of the five stocks (which should be reviewed when the project is over, because the learner will be able to see the progress he has made in acquiring knowledge and understanding of the operation of business in the American economy.

During the length of the assigned project, each learner should engage in the following activities: (1) chart the variations in the prices of each of the five stocks weekly, using the closing prices of each stock on the same day of the week as for the date of the purchase; (2) collect newspaper and magazine article clippings of news items affecting each stock and mount them on 8½" by 11" paper, after dating each clipping and underlining the most significant statement in the clipping; (3) make a weekly analysis of price fluctuations of each stock. Newspaper clippings should serve as the source of information for these analyses. The 10 most active stocks on the New York Stock Exchange are identified daily in the *Wall Street Journal*. The "Abreast of the Market" column in the *Wall Street Journal* contains commentary by security analysts regarding the reasons for the heavy trading in the most active stocks.

Upon termination of the stock market investment project, the learner should summarize his investment experiences. The summary should include the following: (1) a statement including the number of shares purchased, the purchase price of each stock, the amount of the original investment in each stock, the total original investment, the selling price of each stock, the amount of money received from the sale of each stock, and the total amount for all stocks sold; (2) a determination of the percent of gain or loss for each stock as well as for the total investment; and (3) a brief analytical summary of the results of the investment. This summary should contain a self-evaluation of the knowledge and understanding acquired from the project.

METHODOLOGY TO MEET PROBABLE FUTURE CHANGES

As sociological and technological changes continue to accelerate, management problems of business organizations will continue to become more complex. If the business principles and management course at the secondary school level is to meet the future needs of those who enroll in the course, emphasis must be placed on subject matter relevancy, learner involvement, multimedia instructional aids, group interaction, group cooperation, conceptual learning, self-evaluation, and performance goals.

As more freedom to select subjects is given to secondary school learners, there should be more freedom of choice in selecting learning activities within the business principles and management course. This calls for cooperative planning of the learning activities by the teacher and the learner. More emphasis can be placed on small business management for the learner who is planning to terminate his formal education (at least temporarily) upon graduation from high school. Likewise, more emphasis on corporate business organization and management can be provided for college-bound learners.

Methods of instruction. The trend toward flexible and modular scheduling in secondary schools will permit more flexibility in planning learning activities. As more opportunity and freedom to plan are made available to teachers and learners, some of the likely trends in secondary school business principles and management courses are the following: (1) small business management internship programs will be provided for the more capable learners in localities where they are feasible; (2) the model business organization classroom plan of instruction will be provided for persons with average or above-average learning abilities where management internship programs are not feasible (job rotation plans will include sales management, advertising management, finance management, production management, records management, etc.); (3) intensive business management laboratories will be provided for lower-ability learners where adequate emphasis is placed upon remedial work in the fundamental educational processes as they apply to situations in business management (much emphasis will be placed upon human relations, problem analysis, and communication; (4) cooperative education systems of instruction will be developed which will be based upon team teaching by businessmen and business teachers; (5) computer-assisted instruction will be provided in the school environment as well as in the business community; (6) business organization and management model instructional packets will be developed for the management simulation plan of instruction (these instructional packets will include management systems simulation, management job simulation, management task simulation, and layout and work flow simulation); (7) business management seminars will be provided in which discussions will be led by businessmen, and emphasis will be placed on cooperative problem solving and decision making within the discussion groups.

Instructor preparation. The business principles and management course instructor of the future will need a broad subject matter background in the field of economics and business administration and adequate preparation in the areas of behavioral science, educational psychology, and general business teaching methodology. One or more courses in each of the following areas should be included in the instructor's program of preparation to teach the business principles and management course: (1) economics; (2) business organization; (3) management principles. (4) business communication; (5) computer technology; (6) business law; (7) accounting; (8) business finance; (9) marketing and consumer behavior; (10) personnel management and human relations; (11) business, industrial, and social psychology; (12) economic geography and ecological science; and (13) general business instructional methods.

CHAPTER 5

Economics

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The impetus for new methods, strategies, and techniques in economic education comes from an awareness of prevailing conditions and attitudes in the high school as well as the need for economic education. Students in our schools today are not turned on by education. They have not been sold on education as a value in and of itself. Today's high school students appear, for the most part, not to be really involved in their educational experience. Education for these students is not an integral part of their lives and activities, but rather an experience that is forced on them by the "establishment" and which they apparently endure. The high school is merely a "marking time" period. Educators must realize how necessary it is to overcome student apathy and develop in the students a real desire to learn so that motivation is internal rather than external.

Business educators are more aware than ever that it is also imperative to develop a citizenry that is economically literate: one that can perform intelligently and effectively as consumers, producers, and voters. The relationship that exists between economic literacy and democracy, political understanding, and individual goals has been apparent for many years. In addition to business educators, the American Economic Association and eminent economists such as Ben W. Lewis and George J. Stigler have added their efforts to promote more and better economic education in the public schools. Recently established institutions such as the Social Science Education Consortium and ERIC (Education Resources Information Center) Clearinghouse for Social Science Education are helping to analyze, synthesize, and implement new ideas and approaches. The efforts of professional people in business education and

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economics have laid the foundation for changes that have taken place in teaching economics. These changes have occurred on three fronts: in underlying philosophy, in the approach to objectives, and in the use of methods, strategies, and techniques.

CHANGES IN UNDERLYING PHILOSOPHY

The social science offerings in public schools show a trend away from history and geography as the typical or most commonly included to economics, sociology, psychology, and anthropology. In addition, all subject areas are involved in a more interdisciplinary approach both with regard to methods and concepts. A greater cooperation exists between disciplines that at one time competed with one another. For instance, the new publications by the Joint Council on Economic Education reveal cooperation between social studies, business, and home economics in developing guides for teaching personal economics in each of these subject areas.[1]

Educators in economic education, as in other disciplines, are moving away from the teacher-centered educational activity to the student-centered activity. The teacher-directed lecture-discussion format is no longer considered the most effective or desirable strategy for developing economic understanding. Active participation and experimentation on the part of the student is considered essential to the learning process. This thrust entails a change in the role of the teacher from a disseminator of information to a director of activities that lead the students to inquire, analyze, and discover the desired concepts and principles. Within this frame of reference, facts are only incidental; it is more important to know how to use facts and the various forms of analysis to perceive relationships, to proceed from this to an understanding of concepts, and eventually to make decisions about economic issues. Of course, no analysis can be made, understanding developed, or decisions formed without a knowledge base founded upon relevant, useful, and accurate facts.

Along with this commitment to promoting student involvement and to developing in the students an inquiring mind is a commitment to developing in the students a concern for values and an awareness of the role that values have in the economic system. Today's educator must be more willing to discuss all aspects of controversial issues, thereby providing an opportunity for students to perceive the underlying values. In addition, educators must be willing to let students develop their own value systems rather than impose an already previously developed system. This entails a greater faith than is usually evident in the American economic system as well as in the students to develop a value system that is compatible with this economic system.

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[1] *Teaching Personal Economics in the Business Curriculum. Teaching Personal Economics in the Social Studies Curriculum. Teaching Personal Economics in the Home Economics Curriculum.* New York: Joint Council on Economic Education, 1971.

A corollary to the student-centered experience is the provision of a procedure whereby the students evaluate their own efforts. An example of the use of this technique is the Public Issue Series of the Harvard Social Studies Project.[2] Students judge discussions on two levels: one in terms of the issues, and the second in terms of quality of discussion. They judge the issues as moral or value issues, issues of definition, issues of fact and explanation, legal issues, and frame of reference issues. Discussion is also judged as being persuasion-winning, feeling-unloading, or problem-solving. Other factors which the students consider are sensitivity, clearness of the statement of issue, continuity, and relevance.

CHANGES IN APPROACH TO OBJECTIVES

The changing philosophy has resulted in corresponding changes in the substance and nature of the objectives for teaching economics. The importance of well-defined objectives is reemphasized, and the content, activities and evaluation of performance are seen as directly relating to and growing out of the objectives.

Substance of objectives. The new approach to teaching economics generally includes four major course objectives: (1) acquisition of inquiry skills, (2) acquisition of knowledge, (3) recognition of values, and (4) development of desirable attitudes. Including acquisition of inquiry skills as a desirable result of an educational experience is indicative of a realization that such an experience should help students develop a method of using rational thought in looking at problems and issues rather than using unsupported opinion or pure emotion. Through an inquiry approach, students learn a procedure whereby they can make decisions about economic issues that are justifiable and consistent with generalizations that can be made about our economic system. The study of economics should provide students with the opportunity to develop the ability to allocate available resources to the solution of personal, social, and economic problems. As a result, the students acquire skills for becoming more effective in producing, procuring, and consuming goods and services. Development of inquiry skills should enable the students to use analytical concepts to ask analytical questions about economic data. Some rather specific inquiry objectives for a given course might be to develop competency in reading economic barometers and discussing the likely consequences or results, or to know the sources of useful and reliable economic data, or to be able to analyze narrative and photographic essays, or to use charts, graphs, and conceptual models.

The emphasis on the acquisition of desirable inquiry skills does not preclude the need for acquiring certain kinds of knowledge. The teacher still needs to identify the facts and concepts about which the students should be knowledgeable. Knowledge objectives, however, are precisely stated; no longer acceptable are vague statements such as "students shall understand and appreciate our economic system." The statement of objectives is such that both teachers and students can easily determine the end-result of a particular activity or lesson. For example:

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[2] Sanders, Norris M., and Tanck, Marlin L. "A Critical Appraisal of Twenty-Six National Social Studies Projects." *Social Education* 34: 439; April 1970.

> The students
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> Shall know the purpose of economic systems and the basic economic principles of each system.
>
> Shall know that values and value systems have a great deal of influence on the economic system.
>
> Shall know the major types of economic systems.
>
> Shall know the main features of an economic system.

The concern for values that is an integral part of the new philosophy is incorporated into the objectives of economic education. These value objectives do not stipulate specific values that the students must acquire or adhere to, but rather state that after a given educational activity the students should be able to identify, describe, or explain the implicit as well as explicit values in a set of conditions and to discuss how these may apply to other situations. Hopefully, they will be able to relate these values to their own circumstances.

The fourth major substantive objective regarding attitudes is made with the full realization that attitudes cannot be easily changed and that there is really no special method or procedure that can be used to teach attitudes; however, the assumption prevails that certain kinds of attitude changes are desirable. The kinds of attitudes that are legitimate concerns in economic education are derived in part from the emphasis on inquiry skills and in part on a belief in their intrinsic educational value. Illustrative of such attitude objectives are the desire to develop in students a willingness to use data as a source of questions, a willingness to consider a variety of points of view, and a willingness to make decisions based upon proof. Probably a more difficult attitude objective to achieve is the development in the students of a desire to learn and to continue to learn.

Nature of objectives. Two trends are evident relative to the nature of objectives. One is the belief that students should be informed about the objectives and purposes of the course as well as each day's lesson. In other words, if students know why a particular course is offered or a particular lesson is being taught and what is expected of them in performance, they will not only be more willing to learn but they will also learn more. The second trend is that evaluation of a course or a lesson must be made in the light of stated objectives. Until recently most objectives were stated in such a manner that the procedure or device for evaluating attainment of the objective was difficult if not impossible to formulate.

Today, then, the aware teacher tells the students the purpose of the lessons and states the objectives in performance or behavioral terms. For example, if the role of profits is the concept under consideration, the students may be told that the lesson is intended to help them understand the difference between wages and profits. The performance objective could be stated as follows:

> Without assistance, the student will describe the difference between wages and profits as a return to the factors of production and explain the difference as it affects risk taking.

Or, in extending the discussion to labor and labor unions, the purpose given to the students could be that the lesson will help to develop an understanding of the labor union's role in determining how national income is distributed among the various factors of production. The performance objective could be stated as follows:

> Without assistance, the student will explain how labor unions affect the distribution of income.

Or, in the area of fiscal policy and economic stability, where the purpose is to help develop an understanding of how government taxes and expenditures can be used to affect economic activity, the performance objective can be stated as follows:

> Without assistance, the student, given examples of automatic stabilizers, will explain how each would serve as a stimulus during a period of recession.

Using these kinds of performance objectives makes it relatively easy to develop a device for measuring how well the objectives have been met, therefore revealing the degree and the kind of skills and knowledges which have been acquired. In fact, the evaluation techniques or test items that could be used are almost self-evident.

CHANGES IN METHODS, STRATEGIES, AND TECHNIQUES

The changes in the nature and substance of objectives along with the philosophical changes which have taken place lead to the willingness of teachers to move in the direction of developing newer methods, strategies, and techniques to implement the changes. Economics, as well as other disciplines, appears to be using a wide range of methods that have been publicized over the last decade or two. These include programmed instruction, wider use of visual aids, the multimedia or individualized-instruction approach, and other student-centered activities. There are, however, some rather interesting happenings which appear to be most dominant and perhaps hold the greatest promise for the future.

The inquiry/discovery approach. Emphasis in the inquiry/discovery approach is more on the technique used to acquire knowledge than on the knowledge itself. The inquiry approach has been defined as a strategy to set up and test hypotheses. Underlying this approach is the belief that acquisition of knowledge and changes in values and attitudes are a function of inquiring into various issues. The only lectures given are likely to be mini-lectures. The dominant technique is that of questions that force a student to go beyond the instructional material used. These questions are intended to encourage thinking and analysis of the circumstances presented through charts, cases, readings, quotations, pictures, tapes, graphs, or other media. Teachers constantly promote a questioning attitude and stress relationship of ideas. Students learn to relate concepts developed in each situation to the concepts previously developed as well as to some main themes such as scarcity and the flow of goods and money. The inquiry skills may have to be taught before they are used and then refined as students go through the learning process or these skills are taught concurrently.

The following steps (which are clearly related to the scientific method) are generally accepted as necessary to developing inquiry skills:

1. Recognizing the problem from data presented
2. Formulating a hypothesis (asking analytical questions before stating a hypothesis)
3. Recognizing logical implications of hypothesis
4. Gathering data (deciding on what data is needed to test hypothesis, selecting or rejecting sources on basis of relevance to hypothesis)
5. Analyzing, evaluating, and interpreting data
6. Evaluating hypothesis in light of the data, modifying hypothesis if necessary (rejecting logical implications not supported by data, and restating the hypothesis)
7. Stating a generalization.

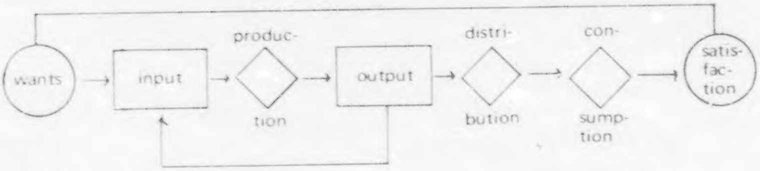
An illustration of the application of the inquiry approach is a presentation through transparency of a conceptual model of the concept of scarcity. The model diagrams the relationship of wants and resources and the problems an ecomomic system needs to solve. After viewing the model, questions such as the following form the basis for discussion:

> What do the quotations "guns or butter" and "beat their swords into plowshares" refer to?
>
> Why not "guns *and* butter," or "swords *and* plowshares"?
>
> What are the implications of choice and scarcity?
>
> What does an economist mean by scarcity?
>
> What evidence from your personal experience can you offer that scarcity is a universal problem?

In a variation of this, Meno Levonstein sees teaching economics on the secondary school level as providing the opportunity for progressive discovery of the unfolding structure of economics.[3] Since economics is viewed by Dr. Levonstein as a system of concepts and integral patterns of reasoning by which the concepts are derived and interrelated, he feels that economics can best be learned by retracing the already well-reasoned paths from concept to concept until the structure of the discipline rises in the students' minds. Students are encouraged to reason out the nature of each concept and the linkage among concepts in a continuous process of inquiry into the nature of economics. The activities which can be used are many and varied. They range from classifying types of markets as evidenced in the yellow pages of the telephone directory, figuring price indices, and converting current GNP into constant GNP, to setting up priority lists for fictitious economies and short research projects on the use of factors of production in local industry.

Conflict analysis/adversary approach. Conflict analysis is quite similar to the inquiry approach; the divergent feature of conflict analysis is inquiry into controversial issues. Econ 12, a project developed by Suzanne W. Helburn and John C. Sperling is probably one of the best examples of the use of conflict analysis.[4] The course is organized around a conceptual structure of economics and uses abstract models of economic process (See Figure I for illustration of model) and methods of analysis and evaluation.

FIGURE I. The Economic Process



Students start by building theories or models about the operation of the economy. These theories can be abstractions, but the students are expected to use them through deductive analysis to explain or predict behavior in a real situation. More importantly, they do not memorize someone else's abstractions, but they do the abstracting themselves and then use and test their own abstractions. From the model building and theorizing, students go on to identify issues involved in questions and ideologies and synthesize their theoretical and factual knowledge into a defensible position on a controversial issue.

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[3] *Ibid.*, p. 418.

[4] Helburn, Suzanne Wiggins, and Sperling, John. "Econ 12 Project." San Jose: San Jose State College, Economic Education Center. (Unpublished)

In analyzing the controversial issues, a systems approach to economic organization is utilized. The intent is to help students perceive not only the whole economic system but also be knowledgeable about it in terms of its many segments that contribute to the functioning of the economy in an orderly fashion. Through the process, students should be able to discover and prove the significance of economic principles and economic reasoning. Hopefully, the ability to classify points of dispute and to classify subissues of fact, definition, interpretation, prediction, and values will lead to a discussion of values as well as to decision making.

Games and simulations. Games and simulations are not new to education, but perhaps they have been used by those teaching economics somewhat later than in other disciplines. They are, however, an important new thrust in economic education and have caught the imagination and interest of educators for a variety of reasons. Simulations or games can be described as a strategy which uses structured role-playing to develop understanding of economic principles. Basically each game is a simplified version or model of a real life situation.

Games are another medium for providing opportunity for students to analyze problems, consider alternatives, experiment, and observe consequences. To this extent, their use is similar in intent to that of the inquiry and conflict analyses approaches. Game-playing forces the students to be active since they must make decisions. In this sense, they influence their environment, and this favorably affects their attitude toward learning. Slow learners participate actively in games because they see some results and gain confidence in their ability as they improve their scores. Game-playing makes seekers of knowledge rather than passive observers out of students, and the competitive atmosphere is a stimulant and motivation to study and learn.

Many people today assume games and simulations must involve the use of computers; however, this is not true. A great many games are available for educational use that are not computer based, and it is this type of game which will be discussed here. Such noncomputer games can be classified as "paper and pencil" games or "box games." Paper and pencil games come in a format similar to workbooks (content and activities, however, are much different), and box games are in a format similar to the popular *Monopoly*.

PAPER AND PENCIL GAMES. "Economic Decision Games" is illustrative of the paper and pencil game approach.[5] The areas covered by this particular game are The Market, The Firm, Collective Bargaining, The Community, Scarcity and Allocation, Banking, The National Economy, and International Trade. The game instructions include sample games and fact sheets that provide the game data, worksheets for recording quantitative decisions in pencil, and depending on the game segment, graphs, tables, and charts. To play the game,

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[5] Rausch, Erwin. *Economic Decision Games.* Chicago: Science Research Associates, 1968.

the instructor divides the class into teams that compete with one another for the most favorable position in the market or economy. In the game segment, The National Economy, the teams act as business advisory councils. They compete with one another in an effort to remain in the favorable position which separates excessive investment from inadequate investment. A point-scoring system measures success. The teams start off with the same points, and points are subtracted whenever profits are less than they would be if operating at optimum, and also when national income reflects other than optimum investment. The fact sheets guide the teams by showing annual consumer expenditures for consumer and luxury goods at all possible values of the preceding year's income. A producer goods figure is derived from purchases in the first two areas and purchases from firms within its own group. Fact sheets also contain tables showing profits for each level of sales at every possible capacity, and a graph is used to determine the income necessary each year for full employment. Succeeding periods' production, capacity, and income are a result of the previous periods' investment decisions. In this game series, the teacher is also provided with background material and suggestions for concluding discussions.

Another paper and pencil game is FLIP (Family Life Income Patterns).[6] In this game the students take roles as family members engaged in financial planning and management. The objective is to budget accurately, to purchase, to use credit, and to invest wisely. The purpose of the game is to introduce participants to a diverse set of family expenditure problems, requiring their management and interpretation; to engage participants in planned economic decisions involving purchases, credit management, and payment scheduling; and to encourage participants to manage complex budgeting factors that may confront families and which in part determine family satisfaction.

BOX GAMES. The box game analyzed and used as illustrative of such games for educational purposes was *Consumer*.[7] The format of the game is a simulated marketplace in which goods are offered for sale and credit is obtainable. Players make decisions faced in life by persons on a limited income. In the game, as in life, a wise decision is more rewarding than an unwise one and increases the chances of winning. Players are given money to buy the various products and receive points with each purchase they make. The products vary in point value in different periods of the game. Players may increase scoring opportunities by borrowing from loan agencies or buying on credit, but they must pay interest charges which are deducted from their score. The decision on whether to buy or not and whether to go into debt or not is the essence of the game. The winning strategy is one where the player will acquire as many points as possible by buying products at their maximum point value while at the same time keeping interest charges to a minimum. Students take roles not only as consumers but also as credit agents and salesmen. While playing the game, they are involved in calculating true interest rates, negotiation of contracts, planning purchases, and coping with unexpected events.

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[6] *FLIP (Family Life Income Patterns)*. St. Paul: Instructional Simulation, 1970.

[7] Zaltman, Gerald. *Consumer*. New York: Western Publishing Co., 1969.

In another box game called *Economic Systems*,[8] students take the roles of manufacturers, workers, farmers, and mine owners. The object of the game is to make profits and maintain a high standard of living. Decisions have to be made as to how to make best use of productive potential and how much to buy, sell, produce, and consume and at what price. The purpose is to provide a graphic illustration of some of the important concepts about the operation of an economic system, including the dependence of each part on activities of other parts, the ways in which group demands can cause an individual to modify his behavior, as well as how individuals can use their power to see to it that their own interests influence group demands and collective goals.

The in-business seminar. The previously discussed approaches show a notable lack of use of the community. Business teachers with their contacts, however, should be able to design projects which could use an in-business seminar. This approach is an extension of the field trip. However, instead of merely visiting the plant, the in-business seminar extends the plant visit to include a sit-down session with the firm's personnel where the economic and management decisions of the firm can be explained and discussed. As in any business visitation, some background study on the part of the students is required. They would do some preliminary investigation of the industry in which the firm is engaged and the local and national economic conditions affecting the industry; they would then compile a list of questions for which they feel the seminar session could provide answers. The in-business seminar could be very effective in developing in students an awareness of the economic factors which affect the operation of local firms as well as provide an empirical base for proving, disproving, or modifying the economic concepts discussed and studied in class.

Special attention to low achievers. Most of the material examined appears to be geared to at least the average-ability student. Some doubt exists as to whether or not low achievers will be able to benefit from these approaches, particularly the inquiry and conflict analyses approaches. The use of these strategies for low achievers would mean modification of the types of projects and the nature of the discussion questions to which the students will apply themselves. Modification would also have to be made with regard to the performance objectives established for low achievers. Whatever is done, however, the fact remains that the low achiever needs to have the same opportunity to develop the skills, knowledges, attitudes, and values in the area of economics as do other more capable students. It is gratifying to note at least two projects that take the low achievers into special consideration.

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[8] Coleman, James S., and Harris, Robert T. *Economic Systems*. New York: Western Publishing Co., 1969.

A COMIC STRIP APPROACH. "The Adventures of Primero Dinero," a comic strip, is a very interesting and perhaps the most novel approach so far in the teaching of economics.[9] Developed by Stephen Jackstadt, Yukio Hamadu, and John Dawson and published by the Office of Economic Education at the University of Hawaii, it is intended to be flexible in transmitting basic economic concepts. It could be used for any student, but should be most helpful in appealing to the low achiever. The concepts of scarcity, alternative costs, resource allocation, economic organization, and the market are covered in a comic strip format. At the end of each episode, application questions are listed which are designed to expand and deepen the students' understanding of the concepts. The questions are to be used in small group sessions as guides to discussion rather than as written exercises. The first episode introduces the students to economics and the basic concepts of scarcity, alternative costs, and resource allocation. Other episodes are concerned with productive resources, the economic problem, decision making, profits, and prices.

WORLD STUDIES INQUIRY SERIES. According to the appraisal by Norris Sanders and Marlin Tanck in the April 1970 issue of *Social Education*, this is a series of readings intended for use with low achievers.[10] The material starts off with interest-catching vignettes in the form of pictures and essays of description of lifelike situations dealing with real people in a dramatic situation. The vignettes are followed by a few pages of political, economic, social, and historical background. The book is designed for emotional as well as intellectual reaction and deals with controversial issues or values which at times show the United States in a less than favorable light. The multiple-choice test for the series is quite easy and success oriented. Discussion questions are intended to get individual student response.

PROBLEMS, CAUTIONS, AND NEEDS

All the previously discussed strategies, approaches, and techniques are excellent forms of instruction, but they are not a panacea. They should be used, not abused. No one strategy, method, or technique will be totally effective by itself. Any of them used every period will become pretty boring. Individual differences of not only students but teachers as well must be taken into consideration. Some teachers are more effective using one method than another; some students learn better through one method than another; some concepts are better taught by one method than another. Just as a business firm producing many products endeavors to attain the optimum marketing or product mix, so should an educational program providing learning experiences strive for the optimum mix of teaching methods, strategies, and techniques.

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[9] Jackstadt, Stephen; Hamadu, Yukio; and Dawson, John. *The Adventures of Primo Dinero*. Honolulu: University of Hawaii, 1970.

[10] Sanders and Tanck, *op. cit.*, p. 438.

In addition to these general cautions, problems do arise in the use of innovative methods. There may be scheduling problems, lack of desirable facilities, or difficulties because of class size. Constraints of class time may cause difficulties in handling the inquiry or conflict analysis approaches. Different amounts of time may be necessary; perhaps schools on modular scheduling can more easily adapt class time for effective results. More teacher time may be required in learning to administer the learning experience, and evaluating the outcomes. For instance, a considerable amount of time is needed to compute the outcomes of the various games.

The changes in methods of teaching economics are demanding, but more importantly, they are exciting and stimulating. Innovative, creative, imaginative teachers are emerging on the educational scene. Education needs this kind of people. It needs teachers with an experimental bent of mind, teachers with a total commitment to education and to providing the best of all possible educational worlds for the students in their care. Education needs teachers who are willing to put out extra time, extra effort, extra energy to devise, test, and implement new methods as well as new uses of old methods in order to overcome the obstacles to learning. Education needs teachers who thoroughly understand the learning process and who have a philosophy of education that serves as the foundation for the activities in the classroom which implement the learning process.

Fortunately these kinds of teachers do exist; some of the recent developments in economic education bear this out. The efforts of these professional people at all educational levels and the efforts of institutions and organizations dedicated to the promotion of economic education provide the foundation upon which our economic and educational future rests. Eventually the public school system will adequately prepare its graduates so that they may cope effectively and intelligently with the economic, political, and social problems they will face.

Section II

MARKETING AND DISTRIBUTIVE EDUCATION

CHAPTER 6

Marketing and Distributive Education

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A CLIMATE FOR CHANGE

Perhaps no factor more than the mandate given by vocational legislation in the sixties has produced a climate for change in distributive education. The change, starting in the early sixties and moving through the decade, has tended to reshape the philosophy, structure, and program of distributive education on national, state, and local levels. This restructuring has ultimately caused numerous changes and modifications which have been felt at the instructional level.

The vocational legislation of the 1960's directed educators to a concern for people. This concern for a variety of populations never before served by vocational education forced educators, in turn, to alter many of their basic instructional methods and procedures. It is the purpose of this chapter to examine the changes in the methodological procedures relating to distributive education in relation to the societal and educational environments of the seventies.

A changing community setting. Prior to the 1960's, the vast majority of schools offering an instructional program in distributive education were located in what might be classified by today's standards as small communities. These communities of one or two high schools were usually centered about a downtown shopping area, with perhaps one or two small shopping centers just beginning to emerge on the outer perimeters. It was this type of community setting that large numbers of distributive education programs were originally organized to serve. However, the rapid population growth of the sixties, together

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with the drastic population shifts from cities to suburbs, has resulted in a changing instructional climate and mode for those who function in today's high school programs of distribution and marketing.

A changing teacher preparation. As the decade of the sixties started, a new breed of distributive education teachers was rapidly appearing to fill the positions created by population growth and the shift to the suburbs. For the most part, these teachers had been professionally prepared for the tasks they were to assume. They were, through their preparation, well grounded in a broad general and professional education, as well as having a high level of technical competence in the area of distribution and marketing. Their preparation was in marked contrast to most of their counterparts of the past who had been skilled operationally but whose professional training left much to be desired. The recently trained coordinators came to the classroom with a variety of techniques and procedures to facilitate their instruction. A broad liberal background, coupled with a highly competent technical preparation, has made it possible for most to adapt to the changes now occurring in the instructional and environmental setting of today's schools.

Varying individuals from varying environments. The past decade has also seen a most drastic change occurring in the student found in today's distributive education classroom. Much of this has resulted from the change of the Vocational Education Act of 1963 and the 1968 Amendments. Accounting also for a good deal of this change in the distributive education student has been societal changes unequaled in our history. These societal changes have produced a significantly different youth from that which dominated the schools in the fifties.

The era is now rapidly coming to a close when the distributive education coordinator can perpetuate, through student selection practices, a personal set of values and expectations of the "ideal" student for his distributive education program. Student selection is now seen in the context of what the program of instruction can do for the student. There is no longer room for the view of the past which chose to ask the question of what the student could do to enhance the distributive education program.

Students now attracted to the distributive education classroom come from broad racial, ethnic, and academic variances. They are no longer young people cut from the same mold, as in the past. They are individuals attuned to varying sets of values and desires from their educational experiences. Many are finding their values in direct conflict with their career expectations. Still others see a career in distribution and marketing as a means of the upward mobility never before open to them. Some are still at the stage of career exploration.

The reasons for their choices are many, but it is becoming increasingly evident that distributive education is no longer seen by large numbers of students as a means of earning money while attending school. The affluence of youth in the suburbs has removed this incentive. These students look for and demand much more than money for their time, both in the classroom and in their on-the-job experiences. There are, on the other hand, ever increasing numbers of students from inner-city schools who find distributive education their means and reason for remaining in school. The growth of distributive education programs in the inner city has been astronomical over the past few years. This program growth in inner-city schools can be directly related to a changed view on the part of retailers, wholesalers, and service industry management on the policy of hiring employees from minority groups.

Distributive education has always been considered strong in "Smalltown USA." Its great growth in the fifties took place in America's smaller communities from coast to coast. Here, too, a change is beginning to occur. In the past, a majority of the distributive education students stayed on in their hometowns, working full time in the same job they once held as distributive education students. Classroom instruction was related to a hometown economy and the local environment; mobility was not the order of the day.

The picture is now rapidly changing: DE classes are larger, and full-time employment in close proximity to small communities is increasingly difficult to find. This has resulted in a more liberated youth looking to the metropolitan areas for his career expectations. These factors, coupled with the personal desires of many young people, have made it imperative that coordinators in small communities relate their instruction to an environment that demands professional selling, mass merchandising techniques, and the knowledge of a host of highly specialized technical content.

Varying expectations to varying goals. Contributing immensely to the changes taking place in the methodology used by the distributive education coordinator are the divergent expectations and multiple career goals which today's distributive education student holds. No longer can we expect students to confine their career choices to a small segment of the retailing field. Neither can we demand a lasting, total commitment to the field of distribution nor an allegiance to those areas of instruction a teacher may prefer. The expectations and the goals of today's youth are widely varied. Many are looking to distributive education as an initial step to other career aspirations; some feel it is far enough removed from the military-industrial complex so that functioning within distribution does not involve a "cop out" to their ideals. Still others see it as a means of contributing to a national movement in consumerism.

It can be said, though, with absolute certainty that a cross-section of distributive education students, whether they be in an inner-city school classroom, a suburban school classroom, or a high school classroom in a small community, will vary drastically from their counterparts of 10 years past and will also vary significantly within their given groups. These young people are no longer willing to be collectively talked at, administered to, or patronized; they feel most strongly that they are individuals, free to seek their own personal goals and expectations.

In order to be effective, today's teachers and administrators must recognize this individualism of high school youth. Gone is the era of blind faith in the authority of adults. Gone also is the time when choice and emphasis on what is to be taught in the distributive education classroom is left totally to the teacher's discretion.

CHANGING METHODS AND INSTRUCTIONAL TASKS

Prior to a discussion of methods and instructional tasks related to distributive education, it should be emphasized that any discourse on instructional modes should contain three basic components: planning, presentation, and evaluation. Further, it should be stressed that all instructional practices should be based on sound learning theory.

The art of teaching requires a highly personalized and unique cluster of skills, concepts, and technical knowledge. These requirements are modified or altered to a great extent by the teacher's perception of himself as a teacher and as a person and his perception of his students, including his perceptions of what he thinks others feel towards him. They are further affected by the actions of all those connected with the educational setting—actions that have been colored by the previous experiences of any or all of those involved, whether they be teachers, learners, administrators, or parents.

There has always been great regard for those who foster or try out new ideas. Teaching is no exception, although sometimes more difficult. Those teachers who develop a willingness to try out new techniques and innovations in instruction are held in high esteem. While it may not be easy to measure differences between effective teaching and ineffective teaching, it can be observed; and those who strive to perfect the art are eventually rewarded.

Successful teachers soon learn to perfect those techniques of instruction which they use most frequently. They quickly show an appreciation for the skillful handling of a variety of techniques, procedures, learning materials, and activities which can successfully be used in a situation calling for either individualized instruction or group instruction. Only when the teacher has mastered both of these instructional modes can he become a fully functioning personality who is able to motivate students.

The remaining portion of this chapter will be concerned with those instructional practices concerned with planning, presenting, and evaluating in teaching and will categorize the basic modes of presentation as either individualized instruction or group instruction. Evaluation will be viewed as assessing behavioral outcomes and performance goals in relation to the students' classroom and on-the-job experiences.

Planning the key to change. There is now just beginning to appear in many areas of the country an awareness on the part of distributive education coordinators of the importance of sharing with the student a right and responsibility in determining the learning experiences and critical tasks to be accomplished within the student's occupational choice. It is at this point of sharing in the planning responsibility that changes in instructional methods, procedures, and the tasks to be accomplished become most evident. As in all good teaching, extensive planning is crucial; it becomes the means of intelligently mapping the experiences needed to change behavior and to accomplish a given task or cluster of tasks. This planning, though, only becomes meaningful to a student when he has had the opportunity to contribute to the process.

The above reference to planning should not be confused with the old, tired expression of "student-teacher planning," which many college methods courses have attempted to outline, nor should it be confused with what many *distributive education coordina*tors have sought to pass off on their students as cooperative planning. This need only be viewed as *maneuvering* students into doing what the teacher coordinator wants to do and will do with or without student participation.

The emerging process referred to is a true student-directed planning a planning done within the broad framework of objectives that the teacher, his colleagues, research, and sometimes the student have established regarding the experiences essential to functioning within a given occupation or cluster of occupations in distribution and marketing. To say it another way, it is the individualization of instruction.

There is a good deal of confusion regarding the use of this term in its global perspective individualization of instruction is not a method, not a procedure, not a way of organization. It is a philosophy of teaching which responds to the values of the individual and respects the individual as a person. It demands the teacher recognize a wide range of interests and abilities in his students; and it views the teacher as a resource person, one who provides the materials, supplements the ideas of students, and provides the situation and the atmosphere for learning. The teaching of distributive education can only be effective when undertaken in an educational environment where the student and the teacher both see their role in perspective. These roles are brought into sharp focus when an opportunity is given the learner for true involvement. The involvement can only be insured when the learner has had a part in the choices of what he is going to learn, with whom he is going to learn it, where he is going to learn it, and when he is going to learn it.

There is a growing belief among many educators that as individuals we do not have the right to make a significant decision for another human being. To some teachers this may be frightening, for it reduces the image of teacher to solely providing the situation and climate where each child can learn. This changing philosophy does not give license to pull out all the stops, that students can do anything they want. What it says is that the learner has the freedom to choose the procedures of learning. In distributive education this can be exciting, for it will bring the realities of the real world into the classroom. It also accomplishes another important factor freedom of choice in learning complements the premise of the multiple talents in students or the idea that each learner is above average in something. The situation and climate will foster, if given the opportunity, a broad, rich environment where all students *learn* without being *taught*.

VIEWING A TOTAL CURRICULUM. Perhaps there is no more important factor contributing to the changes appearing in the teaching methods used by distributive education personnel than a recent commitment on the part of coordinators to view a comprehensive curriculum associated with the distributive occupations. This current outlook more than likely stems from the development over the past five years of a taxonomy of distributive education and distributive occupations. This, coupled with the subsequent converting of the USOE reporting system from the Standard Industrial Classification to the new codes and titles outlined in *Vocational Education and Occupations*, has produced a more global outlook on curriculum associated with distributive education. (For a comprehensive treatment of the taxonomy, the reader is directed to Chapter 18 of the *1970 National Business Education Association Yearbook*.)

This broad-based view of curriculum has in turn produced its effects on the planning cycle and subsequently on the methodological procedures used in the classroom. It has brought about a need for a systems approach to curriculum and instruction, that is, an organized plan or procedure which, if and when followed, will result in a much improved education for distributive education students.

It should be cautioned that the use of any system of and in itself will not produce a better educational program. A systems approach does, though, present teachers with the opportunity and the means to come to grips more exactly with what they wish to achieve. It thus outlines a program of how teachers go about achieving their goals and how to lay out mechanisms that honestly assess the outcomes they desire for themselves and their students. Quite simply, this means a systematic plan will foster exploration of wide assortments of choices and alternatives leading to improved courses of action. The prime objective, then, of such a system is to promote imaginative and effective decision making in the areas of goal setting, alternatives seeking, and evaluation of results.

The following schema is presented to show the reader how concurrent development of distribution-and-marketing-associated occupational curriculums and instructional techniques can result in a systematic teaching-learning process in distributive education. Tyler has identified four fundamental questions to be answered when developing any curriculum plan of instruction. They are:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?

4. How can we determine whether these purposes are being attained?[1]

Within these four questions is the basis for viewing a total curriculum in distributive education. Question one relates to setting goals, two and three to seeking alternative methods and procedures, and four to evaluating desired teacher and learner outcomes.

The long-range concern becomes that of devising a plan which not only enables the planner to ask the right questions but also provides him with the steps and tools of logical problem solving. Therefore, a systematic approach to providing a total curriculum package in distributive education must ultimately follow the same course. It must identify the problems, analyze these problems, set attainable goals, and then determine strategies for solutions. The system must then implement solution strategies and, to complete the cycle, determine the effectiveness of these solution strategies. For a detailed explanation of the steps and tools used in a total systems approach to education, the reader is directed to a series of publications produced by Operation PEP, a statewide project for educational planning in California.[2]

Corrigan, Corrigan, and Kaughman's approach may well serve to illustrate a model for the development of an instructional systems approach to a total curriculum in distributive education. Prior to embracing such a system, though, there is a need to emphasize some considerations basic to the premises on which vocational instruction is developed. No matter what the subject matter, the prime object of vocational instruction is to enable the student to (1) capably perform satisfactorily on the job and (2) be capable of improving his skills and knowledge through further practice and study. To achieve this first premise, it is necessary to know what the job consists of, what one needs to be able to do to perform each of the tasks, and how frequently each task is performed. The student must be provided with an opportunity for practice in performing these tasks under conditions as close as possible to the job. To accomplish the second premise (improving skills through performance), it is essential that the student learn enough about each task to determine whether he is doing it correctly. He must be able to discriminate between perfect performance and incorrect performance. He must be able to evaluate his own performance of each required task. Therefore, any strategy for developing effective vocational instruction demands performance orientation rather than subject matter orientation. The strategy, then, uses the job as the basis for describing what will be taught and in what order and to what degree, rather than the haphazard presentation of subject matter over a prescribed length of time.

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[1] Tyler, Ralph W. *Basic Principles of Curriculum and Instruction.* Chicago: University of Chicago Press, 1969.

[2] Corrigan, Robert E.; Corrigan, Betty O., and Kaughman, Roger A. *The Steps and Tools of the System Synthesis in Education.* U.S. Department of Health, Education, and Welfare, Office of Education. Washington, D.C.: Government Printing Office, 1967.

FORMULATING DESIRED OBJECTIVES TO ATTAIN REALISTIC OUTCOMES. Probably no segment within education has seen a more drastic change in the last few years than that of planning through instructional objectives. There is also little doubt that this change can be directly traced to Robert Mager's popular paperback book, *Preparing Instructional Objectives*. For many years educators have discussed the importance of instructional objectives, but few in distributive education ever saw their real value. This was more than likely due to a lack of understanding as to the purpose behind the instructional objective. The writing of the instructional objective has too often been a source of difficulty for all teachers. Esbensen states that the word *objective* in education has generally meant *purpose*. "And when educators speak of purpose, they almost invariably use words such as *understanding*, *comprehension*, and *appreciation*. . . . But *when left wholly in this form* they do not refer to anything that is directly observable and, therefore, do not permit us to evaluate how well we are doing whatever it is we are trying to do."[3] In the past, instructional objectives have not been viewed in relation to performance goals. Mager's work subsequently showed that the purpose of an instructional objective was to make clear to teachers, students, and other interested persons what it is that needs to be taught or what it is that has been taught.

Mager felt that well-written instructional objectives contain three basic elements, each of which contributes substantially to the planning sequence. They convey to students what they will be able to do when they have mastered the objective, outline the conditions under which students will be able to accomplish the objective, and make explicit to students the extent to which they will be able to accomplish the objective. It has been said that a well-written instructional objective specifies under what conditions and (when appropriate) to what extent a certain kind of student performance can be expected to take place. A firm understanding of Mager's work is essential to any distributive educator who seeks to organize his instructional program and develop a curriculum in tune with a systems approach.

In a more recent publication, Mager and Beach have identified three phases of course development, each having several steps which have input into the system. The phases—preparation, development, and improvement—are tied closely to the various steps and parts of a general system for curriculum development.[4]

A general description of Mager and Beach's model should provide the distributive education teacher with a significant instructional planning tool. First to be accomplished is an accurate definition of the problem, that is to say, making clear what it is to be achieved and the basic ground rules for achievement. By performing such an analysis, insight can be gained into the overall mission of the distributive education program, the program goals, and the philosophy of distributive education which will tend to determine the requirements and constraints affecting program and course development.

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[3] Esbensen, Throwald, *Performance Objectives*. Duluth: Duluth Public Schools, 1966, p. 1.

[4] Mager, Robert F., and Beach, Kenneth M. *Developing Vocational Instruction*. Palo Alto: Fearon Publishers, 1967.

The steps of the preparation phase are designed to provide an assurance that all the information and practice necessary for the learner to perform the job are included in the instructional program. These steps provide a systematic derivation of course objectives that begin with the job rather than the content. To accomplish this, a description is essential in general terms of what a worker actually does when performing on the job. Next, job performance must be defined in close detail. This can be achieved through a listing of each of the functions to be accomplished on the job together with a description of the steps or tasks involved in each function. Lastly, the student population must be described in detail. From a description of the student population, course prerequisites can be prepared and can be adjusted on the basis of task objectives. Course objectives can be derived primarily from task analysis information and adjusted on the basis of course prerequisites and other constraints such as time and facilities.

The first steps of the preparation phase include performing a methods-means analysis in order to consider the various instructional strategies, materials, and media appropriate for presentation. Here, too, at this stage the measuring instruments (examinations) with which to measure success are prepared. A criterion exam similar to final inspection should also be developed from the course objectives and a prerequisite test should be given to determine the entering skill or starting point of the learner.

The course development phase begins by outlining the instructional units in relation to job tasks so that at the end of each unit of instruction the student will be able to do something that he could not do before. The next step is to identify the type of performance associated with each of the steps of the task so that intelligent decisions may be made regarding the instructional techniques most appropriate for the teaching of each task and about selection of instructional materials and devices. A sequencing of units can then be analyzed to determine maximum student skill and course efficiency.

With content identified, instructional procedures and relevant materials listed, and an appropriate selection made of the methods-means, lesson planning can be completed, and the instruction will be ready for trial.

The last step, the course improvement phase, involves checking the reliability of how well instruction has met the objectives and how well the objectives satisfy job performance. If necessary, modifications should be made which will result in improved instruction. This course improvement stage also provides for changes taking place within the field of distribution and marketing, new teaching techniques and devices that become available, and changes occurring in the student population.

One of the first in distributive education to address himself to the topic of instructional objectives was Warren G. Meyer, who set forth a structure for identifying the components in the statement of an objective. Since Meyer's initial work, several distributive educators have moved ahead in the area of performance objectives related to distributive education.

One of the foremost research endeavors in distributive education has been the work of Lucy C. Crawford. Crawford's work, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," has provided a basic step in curriculum development, that of identifying what should be taught in the several areas of distributive education. Although the guiding purpose of the study was to determine inputs associated with the distributive teacher education curriculum through a competency approach, its far-reaching benefits may well lie in the realm of determining the basis for developing performance objectives for all high school and postsecondary distributive education programs. Recently too, there has been the work of Ertel, who has contributed to a systematic development of curriculum through the development of a retailing instructional system for distributive education. (A detailed description of this study can be found in the 1970 *National Business Education Yearbook*).

There can be no doubt that the changes taking place in basic planning for curriculum are producing changes in the overall instructional pattern. Systematic curriculum planning is producing an enhancement of student achievement and is providing greater relevancy to the acts of teaching and learning. The systems approach, when applied to curriculum and instruction, also provides a most logical and orderly procedure for investigating the multitudinous problems which confront distributive education. The systems approach requires, too, that distributive educators be detailed and specific in thoughts and actions. No longer can teachers operate simply as a learning resource; instead, they must assume the role of manager of learning resources. When this role is assumed, the teacher in effect is saying that he is the most appropriate resource available, more appropriate at realizing the predefined course objectives than any textbook, workbook, program, film, tape, or record available.

Presentation the path to change. The vocational legislation of 1963 made possible two modes of instruction in distributive education. Both the cooperative and project approaches were viewed by the legislation to be equally capable of attaining desired outcomes in distributive education. It is interesting to note, though, that few states have taken full advantage of the expanded legislation and organized instructional programs about the project plan. Wallace, in a survey directed to state supervisors of distributive education, found that only a handful of twelfth grade, noncooperative distributive education programs were in operation and very few new programs patterned on the project plan were anticipated.[5]

It is safe to assume that for the present, most distributive education programs are organized on the cooperative plan. There is also little doubt that the actions taken by many distributive education state supervisors, which have resulted in a thwarting of the growth of project plan programs, are extremely shortsighted. This self-imposed limitation has been a serious setback to the numbers of young people who might have been served by distribution and marketing. Further, this retardation of growth may also be a deterrent in the implementation of many of the more innovative approaches available to teachers of distributive education. Many of these approaches particularly suited to a project plan classroom situation can also be used in a cooperative organizational structure.

Even though relatively few programs organized on the project plan are in operation, a treatment will be given of those instructional methods and procedures that are appropriate for the method. The cooperative plan being well established as a philosophy of instruction may prove to be less vulnerable to the changes taking place in instructional methods and procedures. it is hoped though, that all instructional methods and procedures discussed will have relevance to both the cooperative and project patterns of organization.

INDIVIDUAL-ORIENTED INSTRUCTION. The cooperative plan has at its base the premise that classroom instruction must be directly related to the student's on-the-job experiences. This point of view is in complete accord with the philosophy of individualization of instruction discussed previously. The project plan seeks to simulate on-the-job and other pertinent experiences related to a learner's career goal so that these experiences may become an integral part of the student's classroom instructional program. This instructional plan, too, is in congruence with the philosophy of individualization of instruction.

Perhaps the greatest changes taking place related to the instructional delivery system in distributive education are those methods and procedures that are closely tied to learner-centered instruction. Overall technological advances in education have, for the most part, been clustered about learner-centered or individualized instructional activities. This can be most dramatically seen in the use of the teaching machine and all of its many variations. Programmed technical manuals are now a part of most distributive education classroom materials, as are programmed textbooks in merchandising mathematics and salesmanship. The incorrect use of these materials, however, has often hampered teachers from gaining maximum benefits.

It is essential that teachers view individually designed materials as merely components of a larger instructional package. When this view is taken, several approaches to learner-centered activities can then be integrated into a total instructional package. To illustrate this point, let us assume the teacher has formulated several desirable behavioral outcomes related to student performance associated with "meeting customer objections to a given product," and that the teacher has given a pretest to determine the prior level of competency held by the student. The task now facing the teacher is to determine the optimum path by which the student may obtain this goal.

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[5] Wallace, Harold R. "The Block-Time Project Plan in Distributive Education." *The Emerging Content and Structure of Business Education.* Eighth Yearbook. Washington, D.C.: National Business Education Association, 1970. Chapter 33, pp. 270-77.

Four general approaches might be taken to accomplish this end. The first approach is generally referred to as *individually diagnosed and prescribed instruction.* This form requires clearly specified behavioral objectives with definite materials and methods provided to meet them. Here such media as programmed materials, films, tapes, textbooks, manuals, and a myriad of other aids can be employed to "free up" and to disperse specific resources needed for the learning situation. The objectives associated with "meeting customer objections" can be thus accomplished in a meaningful and logical manner.

A second form or approach to individualizing is *self-directed instruction.* Here the teacher works with the student in establishing a particular set of goals and objectives, but the choice of materials and methods for achieving the goals and objectives is largely left to the student himself. The student is, though, always free to consult the teacher for ideas and sources of information.

The third form is referred to as *personalized instruction.* This approach has the learner choose his own objectives; he then follows a directed program set by the teacher who prescribes specialized materials and aids.

The last form, most successfully used with above-average learners, is *independent study.* Here the learner decides his own objectives and the means to attain these objectives. With this form, the pretest is given after a conference with the teacher and an agreement on the objectives to be attained. Independent study is an attempt to deal as adequately as possible with real individual differences and to provide exciting learning experiences for every student, regardless of his ability or interests. One of its major elements is that the student decides what he is interested in and uses that interest to gain knowledge and to exercise his creative and organizational powers. Independent study, if given enough weight and respect in the distributive education classroom, should tap latent abilities and lead to a greater commitment for many students.

At the root of each of the four forms of individualization or any combination of the forms is the individual student contract. The contract is merely a modified lesson assignment with a due date agreed upon by learner and instructor. It may include the type of material the student will be tested on, the criteria for achieving a desired level of attainment, and the resources needed by the student to accomplish the contract.

Within the past few years, several instructional modes have made it possible for the distributive education teacher to pursue an active learner-centered classroom environment. Perhaps more than any other in recent times, Skinner's work on the teaching machine initiated this revolution in educational technology. His work has made programmed instruction a common term in education.

There are now a variety of other instructional methods which have evolved since the introduction of the teaching machine that have direct application to a learner-centered classroom. Education television, like the teaching machine, has made a significant impact on the classroom. The variations of ETV, closed-circuit television and the portable video-tape player, have moved the media within the reach of many more teachers. Media such as single-concept loop films, cassette tapes, and self-threading motion picture projectors have also made it possible for the learner to be exposed to many more materials than were previously available.

Contributing also to the changes in instructional modes has been a redirection in the thinking of many educators as to the purpose of the school library. This can be easily illustrated by the numbers of schools that have renamed this area the "learning center" or the "media center." Much of this change can be traced to provisions in recent federal legislation providing for the purchase of instructional supplies, teaching aids, and equipment. It is not uncommon to find a DILEX system computer terminal with printer located within a learning or media center. Data gathering and dissemination via a systems approach is already a reality and will, in the near future, cause more numerous instructional changes at the secondary level.

The teacher of distributive education is rapidly being faced with a multitude of educational technology. This technology, for the most part located in the media center, is clustered within the individual learning carrels. The carrel, containing a complete audiotutorial system, makes use of such hardware as closed-circuit television, video- and audio-tape recorders, loop film projectors, slide and filmstrip projectors, and overhead projectors. The methodological changes and difficulties in using educational technology are mostly associated with integrating the hardware and software with the student's individual needs and career goals. The distributive education teacher has had to become a materials procurement specialist as well as a specialist performing all tasks associated with this type of instruction.

Many instructional modes used in the learner-centered classroom were already used by teachers in a teacher-centered classroom atmosphere. These materials, such as technical manuals, reference books, programmed instructional materials, case problems, and textbooks, have always been a part of the distributive education classroom delivery system. More recently, though, commercial and private publishers have developed a variety of materials in distributive education that have complemented the learner-centered classroom environment.

There too are those learner-centered instructional methods and procedures which are designed for use outside the classroom or school environment. The field observation, field interview, and field trip, all forms of what might be categorized as occupational contacts, best illustrate these modes. Control of each of these activities can also be effectively accomplished by using the student contract.

There has been a growing emphasis in most distributive education classes on the area of market research. Creative marketing projects are again prime examples of learner-centered activities, although not exclusively limited to the individual learner. Creative marketing projects can be planned to represent an individual, small-group, or joint-class effort to investigate worthwhile and significant problems. Probably no more important effort has been developed in the distributive education classroom in recent years than challenging student ability to attack critically a specific problem through the use of the scientific method. Using creative marketing projects has caused distributive education teachers to become proficient in several instructional methods and techniques that had not before been commonly used in the distributive education classroom. Several of these modes will be discussed later in relation to teacher-centered activities.

What has previously been discussed under the heading of individual-oriented instruction were those modes of presentation that are student-centered in nature. They are what many educators say promote a free social-emotional climate in the classroom. By their very nature, these modes illustrate a kind of democratic leadership demonstrated by the teacher's instructional pattern. They allow the learner a sense of freedom in his choices of direction; yet they add supporting tasks, rewards, and goals to reach a given degree of self-fulfillment. Individual-oriented or student-centered instruction demands that the teacher recognize a wide range of interests and abilities in his students, and it views the teacher as the prime resource person, one who provides the materials, supplements the ideas of students, and provides the situation and the atmosphere for the learning situation. These modes deal with individuality; their purpose is to recognize, enhance, and develop individuality. They help individuals to grow in individual ways, to become what they might become, to extend their vision and promise. Their goal is to make unique persons more unique.

GROUP-ORIENTED INSTRUCTION. No one can argue that learning must be accomplished in a way that is significant to the learner. It must make a difference in the perceptions, the understandings, and in the life of the person. This is not always easily accomplished when teacher-centered modes of instruction are employed in a group learning situation. Students have for many years been exposed to only a limited number of teacher-centered methods and procedures. The lecture-discussion method has been overworked to the point that great numbers of students are turned off the moment the teacher starts to talk. There are, though, those social-interaction methods and techniques that have proved to be effective with young people in a classroom environment and are increasingly being used by larger numbers of distributive education teachers.

These modes of instruction, although for the most part teacher-centered, are providing students with a very effective means of establishing attitudes and gaining basic knowledge and understandings. The essential factor seems to be that even though the teacher's role is autocratic in nature, he is willing to assume a varied leadership role, one that takes into consideration each member of the group and allows for the group to move in several directions. It is only when this climate exists that members of the group soon fall into a pattern of shedding more heat than light on the subject and a true search for knowledge takes place.

One set of such modes of instruction now being employed are those methods concerned with active problem solving. The use of the case problem, role-playing, gaming, buzz sessions, and brainstorming are actively effective in freeing individuals' thoughts in a nonthreatening and objective manner. It is crucial to point out again that the teacher plays a low-key role and that his comments are in the realm of learner-supportive statements or questions. These statements or questions express agreement with the ideas, actions, or opinions of the learners and are commending or reassuring in nature. Their dominant intent is to praise, encourage, or bolster the learner.

There are times when the teacher feels it essential to express a complete or partial disapproval of learner's ideas. It should be recognized, though, that it is the teacher's internalized societal values that largely enter into such responses. By using the means of reproving, disapproving, and disparaging statements and questions, the teacher is by intent saying, "Respect the societal values as I see them, . . . be admonished for unacceptable behavior, . . . the criteria for successful achievement have not been met or are not acceptable to my satisfaction. . . . " These actions should be weighed very carefully before they are employed.

Another set of instructional modes being used effectively in the teacher-centered classroom atmosphere are those relying on a variety of forms of audioverbal instruction. This is where such old standbys as the lecture, informal discussion, dialogue, panel, and debate are used; but, again, a new emphasis is being placed on these classroom instructional modes.

The use of the micro-lecture can be noted as a significant change in classroom instructional procedures. There is no doubt that a self-realization has taken place among teachers, resulting in an awareness of the fact that the span of attention of students when acting in a passive role is very short. Micro-lectures of five to seven minutes, well-planned and well-delivered, are producing outstanding classroom results. This method, coupled with a longer informal discussion whereby the teacher employs predetermined discussion techniques, is now giving new vitalization to the classroom. The realization is beginning to appear that the climate in which the discussion is taking place is of equal importance and in direct proportion to the quality of the discussion. Those teachers who employ status-raising language, a tone of voice which shows strong approval or acceptance of another, are finding increasingly high rewards in their classroom discussions. What are most strikingly absent from these discussion sessions are those neutral acts or statements that provide no affective message for the learner and those statements and actions of the teacher that bring about tension, negative effects, and antagonism.

There is also in the discussion an attempt on the part of teachers to lead the learner to see the inconsistencies in his values, claims, or definitions, to help the learner make descriptive statements which describe events and make claims about reality or what should be. Teachers are now seeing the importance of repeats, summaries, and focuses in order to lead students through what is happening in the discussion and to bring attention to what is happening or going to happen.

One last set of instructional procedures gaining new emphasis in the distributive education classroom includes those which might be categorized as demonstrations and dramatizations. Both student and teacher demonstrations as well as a variety of dramatizations, whether they be group role-playing or social dramatization, have been given new life in the classroom through use of the portable video-tape camera and player.

There is little doubt that improvement and change are occurring in every phase of the teacher's presentation skills. These changes are resulting in teachers who are capable of and able to demonstrate the art of teaching from the initial step of motivating students to that of assessing their effectiveness in reaching desired outcomes. The changes occurring in methodology demand a professional teacher who is a master of all the functions of learning.

Evaluation—the proof of change. It has been stated over and over again that the basic purpose of evaluation is the improvement of the learning process, improving learning by redirecting the learner through the system so that he may attain his goals at a more acceptable or agreed-upon level. At the crux of evaluation, then, is the determination of the extent to which the goals and objectives of the instruction have been achieved. Evaluation should thus become a tool to help the learner become more effective. It is not meant to be defeating in nature; instead it should identify the learning difficulties, so that both teacher and learner can take appropriate actions. The overall intent of this chapter has been to discuss the teaching-learning process in terms of three basic facets, establishing objectives, engaging in goal-related activities or modes of instruction, and evaluating the extent to which the goals and objectives have been achieved. The following brief treatment of evaluation is an attempt to close the instructional system.

Much space has previously been devoted to learner-centered activities. It is therefore important that some discussion be given to how the teacher evaluates his work in this learning environment. There are three basic means by which the teacher can approach evaluation in this type of situation: (1) student self-evaluation, how satisfied the learner himself is with what he has done; (2) peer group evaluation, perhaps the more severe test as the demands of the group are by far more regulatory than those of others; and (3) teacher evaluation, which can take many forms from completely subjective to entirely objective evaluation. There should be no doubt, though, that student self-evaluation is the most effective and can be more than adequately accomplished through the teacher-student conference. There are several rather effective ways to assure a good student self-evaluation, but the essence of any successful self-evaluation can be obtained through three simple questions: (1) What have I gained? (2) Where am I in relation to my stated goals? and (3) What do I need to do next? When the student and teacher have come to an agreement on answers to these questions, then a successful evaluation has been achieved.

Since grades assume a slightly different role in a learner-centered classroom environment, students are forced to find within themselves the motivation for success in whatever they choose to do. They often need the help of others—teachers or other persons from a variety of disciplines and backgrounds to aid them in accomplishing their goals. The evaluation of these goals and objectives consequently may take a variety of forms and several points of view may serve as a basis of final evaluation. If others have had an input into the educational process, the teacher must be willing to share in the evaluation process.

Evaluation of teacher-centered activities is beginning to take on a changed look. Many teachers are currently viewing evaluation, including marketing procedures, in relationship to a sliding scale based on the level of capability and past achievement of their students. In addition, there is now an appreciation by teachers of the view that evaluation is a continuous program. This can be demonstrated by the attention that is being focused on a balance between testing and nontesting, oral and written, and formal and informal evaluative procedures. Distributive education teachers are now more involved in the writing and administering of performance tests for their students than they have been in the past. There can be no doubt that performance testing has greater validity and is more meaningful to the student than the typical written test. The evidence is firm that evaluation procedures are changing in the classroom as well as on the job, and for the most part, teachers themselves have initiated the change. There has come a new awareness that both students and teachers have tended to place too much emphasis on the written test with little evidence as to its validity. This awareness has caused teachers to look beyond the written test to teacher-student conferences, self-evaluations, oral examinations, performance testing, and to any other means that can provide the teacher and the learner with an input to an assessment of the learning process.

SUMMARY

The change process in instructional modes for high school distributive education is occurring at a rapid rate, and generally it is being initiated from within the schools and is being spearheaded by classroom teachers. It is then important to realize that educational technology will foster more changes in the learning process; but it is also important to realize that the teacher need not fear these changes. They will, over time, add new life to the teaching profession. A new educational system is evolving; it has at its base student-centered education. But it also takes from traditional education a stress on knowledge, as it takes from progressive education a stress on the individual learner. It then adds to these components its own stress on an appreciation for the process of inquiry and self-instruction and improved evaluation. Its goal, though, is the same as each of the past philosophies—to assure maximum learning for those concerned with the educational process.

Section III

OFFICE EDUCATION

CHAPTER 7

Typewriting

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One likes to believe that our present methods of teaching typewriting are the best ever and that continuous action research and scientific research will lead to additional improvements! There is plenty of evidence to show that both kinds of research have contributed tremendously to better and better ways of teaching typewriting. A sincere effort will be made in this chapter to point out both the positive and negative aspects whenever a point of controversy appears.

DEVELOPMENTS THAT HAVE LED TO CURRENT METHODS

There seems to be little or no reason to doubt the soundness of the present "position and technique" approach. This approach has evolved as a refinement of the extremes found under the "perfect-copy" approach (with too much stress on accuracy and too little on quick stroking habits) and the "extreme speed" approach (with too little weight on accuracy and too much on excessively fast stroking). Most typing teachers now seem to accept the fact that proper position and efficient techniques, coupled with quick stroking, are the first essentials of good typing skill. Current practices call for a realistic stroking speed from the beginning and, coupled with improving levels of accuracy tolerances, throughout the various training units.

In order to facilitate and make realistic these basic aims, more attention is being devoted to good lighting, the best types of equipment, proper desk and chair adjustments, proper placement of the copy, and other pertinent facets of an efficient typing station. Effective teachers realize how important it is for each individual to understand the significance of each factor. Whether the typist uses the typewriter as a tool for personal or vocational benefit, he or she needs to see

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the total impact on health and skill of improper position and techniques. Perhaps those few teachers who are inclined to belittle or ignore the importance of the above factors should have had the experience of answering questions in a large typing class in the unique Adult Education Center in New Orleans. Almost without exception, these trainees were concerned about why they were making certain kinds of errors and why they were experiencing certain physical discomforts while typing. They, like many others, realized the importance of good position and efficient operating techniques.

The biggest concern of typing teachers in the basic or beginning area is probably that of developing the "touch" system. The sight method, with open keyboards, has taken the place of all sorts of restrictive devices and blank keyboards. Findings on a number of complete case studies show that most "peekers" have various kinds of personal, family, and social problems. These people lack confidence in their ability to type by touch. A few of the grade-conscious students are driven to it by the teacher who has insisted upon a high level of accuracy too early in the course.

All typing teachers should honestly study and try out the current theory that perhaps students should be encouraged to look at the keyboard as long as they feel a need while it is being presented. Those advocating this approach are emphasizing the value of immediate reinforcement to the beginner. This trend is too limited, at the moment, to report on with either a positive or negative reaction.

The standard keyboard, with all its known weaknesses, seems to be here to stay. However, certain individual key changes on the horizon could lead to some real improvements. The arguments about metronomic rhythm versus pattern responses continue to be heard at rather frequent intervals. Employers still complain about improper care of equipment, poor spelling ability, poor proofreading ability, and the high cost of inaccuracy in dollars and cents. Yes, there is still much that is unchanged in typing methodology. The following sections, however, point up some significant practices that could have an impact upon emerging changes.

Electric typewriters. The electric typewriter arrived in business circles some years ago, and it is now arriving in the typewriting classrooms. Those of us who looked upon the electric typewriter as a superior teaching machine are happy about recent trends. Businessmen have purchased more and more electric typewriters to replace manuals. Published tables now show a definite trend in this same direction in the nation's typing classrooms. The time has come, apparently, when those who manufacture manuals are beginning to show concern about a weak second-hand market in the near future. It would seem to be desirable for those who purchase typewriters for schools to deliberate carefully before making future purchases.

So far as proper methodology is concerned, it is a well-established fact that typing on an electric is quite different from typing on a manual. The electric itself cannot provide immediate success; there must be a sound orientation program of at least 10 class periods, and preferably more, to assure an effective adjustment. Some teachers believe that going from an electric to a manual requires even more of an adjustment. However, other than the difference in stroking and spacing, there seems to be little to justify this assumption. One of the big values of the electric is the fact that it will also lead to better manual typing because of improved stroking.

The complete orientation program will point up the differences in stroking, spacing, carriage returning, and efficient handling of the service and repeat mechanisms. There are also a number of pertinent machine and typing-station factors that need to be taken into account in the complete orientation program. Most manufacturers of electric typewriters have an operator's manual as well as a booklet to orient the typist to that machine.

Since the typing classrooms of the future will contain more electrics, it is important that teachers become knowledgeable in all areas of their use. For example, after many years of almost total opposition to the idea, teachers are now advocating the use of the electrics in the basic classroom as well as the advanced classroom. At any rate, the electric can, and must, be justified on the basis of being a superior teaching tool that will provide better qualified typists. It would be helpful if additional research studies could answer some of the pertinent questions in the operation of an efficient orientation program.

Skill-building programs. Typing teachers always express a great interest in, and a need for, knowledge about developing a sound skill-building program. The area of skill building has been the number one interest expressed by thousands of teachers in typing workshops during the past decade or more. If the typing teacher is going to become an interested, efficient, and successful skills teacher, it is most essential that he have a complete knowledge of those methods that will provide good results. The following statements or ingredients will go a long way toward providing such a skill-building program:

1. The effective teacher develops an organized program. Much careful planning and execution must be done to assume success in any good skill-building program. Proficiency in the use of the typewriter has to be developed, and it does not come by simply hoping that improvements will result from certain practice sessions. For example, there seems to be a feeling on the part of some that giving long timings of three to five minutes will *build* skill. Timed writings, however, are basically designed to *measure* skills that have just been developed during a practice session. Special days may be set aside as skill-building sessions, with the timings serving as a measure of total success. An alternate plan would be to set aside certain portions of certain days for drills and timings.

2. The effective teacher uses procedures that lead to relaxed, yet productive, responses. The teacher needs to make use of methods that do not constantly irritate or frustrate the individuals in the classroom. Emotional

stability and relaxed responses are vital for successful growth in skills. It is most difficult for a student to make progress under constant tension and unreasonable stresses. The best methods can be wasted if the teacher fails to realize the importance of all sorts of varied and interesting procedures.

3. The effective teacher supervises and evaluates each individual as much as possible. It takes a great deal of hard work to teach typewriting as it should be taught. The statement, "The typing teacher on his feet is worth two on the seat in any market," is very true. The active and interested teacher who spends time looking for poor techniques and posture and evaluates frequently at the typing station stands the best chance for success. It is difficult to know what is going on in the classroom while seated at the desk grading papers or reading. Those who find this type of teaching too fatiguing should consider that most people do not tire of doing those things they truly enjoy. There is every indication that the typing classroom of the future is going to demand even more attention to the basic needs of each student.

4. The effective teacher conducts frequent action-research projects. The teacher who employs frequent studies of various kinds of drills and techniques is going to become more involved and, hence, more interested in getting good results. At the same time, the individual student becomes interested in, and challenged by, the prospect of measurable progress. A strong background of statistical knowledge is not required because growth can be measured on the basis of improvement of each individual and on class averages. These varied programs will point out the more successful programs, and these, in turn, can eventually form the nucleus of a fine skill-building program.

5. The effective teacher employs the pretest, practice, posttest principle whenever possible. Action-research projects lend themselves to this three-step plan. The first step calls for taking an inventory of present skill in a given area of concentration. The student thereby obtains an immediate evaluation in that particular area and also sees the need for, and importance of, the meaningful practice that is to follow. The teacher then provides well-guided procedures and meaningful materials for the student to practice on. At the end of a certain period of time, the student repeats the first step as a posttest. The differences between the first and last tests provide an effective and accurate measure of how well the student has applied himself throughout the training sessions. The accumulation of those projects which prove to be effective provides the teacher with an effective set of skill-building programs.

6. The effective teacher tries to make the warm-up meaningful. Even though the primary function of the daily warm-up is to limber up the fingers, it is also well to aim for some sort of worthy benefit from each session. The warm-up may be the typical one presented in the textbook and administered as suggested. The resourceful and innovative teacher may wish to develop the warm-up plan on the basis of specific areas of concentration for a one- or two-week period of time. Such a plan gives each student an on-going program

and discourages a lackadaisical type of warm-up period. Warm-up efforts can then be accumulated day by day and turned in at the end of that stress period. A record of each person's total warm-up performance can provide an additional measure of individual application or effort. There are also numerous motivational devices that can be tied into an effective warm-up program. Research studies are now pointing out, however, that overly long warm-up periods tend to encourage fatigue and lead to poor performance for the rest of the period. It would be well to limit the warm-up period to from three to five minutes.

7. The effective teacher makes use of preview techniques. Most typing teachers believe that some form of preview has a definite place in the typing classroom, and it would certainly be difficult to imagine that it could do any harm. Preview can be applied to all areas of the course, not confined chiefly to straight-copy activities. The following are some common forms of preview:

The majority of teachers make use of the preview lines as suggested in the textbook.

A preview program may be developed by having the student pick out difficult combinations within the unit. Each time a typist experiences difficulty with a word or phrase, he strikes a diagonal to mark the spot. A practice can be made up consisting of a line or two of the troublesome combination. The only weakness of this plan is that the students who need help most often do not indicate any troublesome areas.

It is possible for a teacher to vary the procedures by selecting the preview materials to be practiced. Whenever a word is repeated twice while reading the copy back to class, the students practice the repeated word until the teacher starts to read again.

A more involved, but quite beneficial, preview calls for breaking the preview into five 1-minute timed units. When each minute is called out, the student marks his copy with the diagonal and relaxes for a few seconds until told to continue. The student is then asked to compute the gross errors for each individual minute. Considerable time and assistance may be necessary the first time or two this plan is used. The copy that is involved in the more difficult intervals can be practiced prior to the final performance. One of the important "extra" values of this plan is the fact that it points up the people who show a wide difference between their 1-minute timings and the total 5-minute timing. Those who lose five or more words a minute on the 5-minute timing are using poor techniques or losing their place in the copy.

8. The effective teacher makes use of sound pacing practices. Pacing implies that the typist will be stroking within a range of speed that can be handled with reasonable accuracy at that time. Many inaccurate typists are simply trying to type too fast for the present level of skill. There are several methods that can be used to conduct an effective pacing program. Supplemental books are available that are geared to just such a program, or the teacher can duplicate copy for the students and carry them through a pacing program in

half-minute intervals with some sort of tight control over the gross rate, as well as error tolerance at each level. There are also a number of mechanical pacers now on the market that are designed to restrict the typing rate. The key to success in this area is to provide some sort of restrictive means to keep each typist within the stroking range assigned. A well-conducted pacing program will do wonders for the person who has been trying to go too fast, thereby making too many errors.

9. The effective teacher calls for tallies of accomplishment on significant activities. Almost every student in the class likes to be recognized for improvement or accomplishment, even though some of them appear to be totally unconcerned. Any show-of-hands technique which recognizes only the select few at the top of the class is going to break down the morale of the entire class. The wise teacher asks for a show of hands at an achievement level low enough to include every member of the class and thereby secures some recognition for all students. The slow student will try just as hard to show some improvement as the faster students. As with any good approach, however, care must be taken not to overdo this process.

10. The effective teacher is knowledgeable enough to make intelligent decisions about the copy that is used. The student who is experiencing areas of difficulty needs to be channeled into meaningful practice sessions. The statement, "Practice makes perfect," is not totally correct; rather it should state, "The right kind of practice makes perfect." The well-qualified typing teacher knows which drills and techniques will lead to improvement in speed, accuracy, or any other demonstrated need.

It has been reasonably well established that easy and balanced-hand materials, for short intervals especially, are conducive to increased stroking rates. Likewise, harder and alphabetic materials for sustained periods will lead to more accurate stroking. The teacher, then, needs to know what constitutes a truly easy or hard unit of copy.

One of the newest and most exciting developments in skill building has been the acceptance by researchers of the validity of scientific copy control in the development of certain skills. For one who authored a supplementary typing book in 1955 with syllabic intensity, stroke intensity, and percentage of common words as controls, this is an encouraging development. Several fine and valid research studies have been completed in the past decade which validate the assumption that certain results can be attained by controlling the copy used. More and more different motions are now being tested. The time has come when dedicated typing teachers must be aware of and understand what is meant by scientifically prepared materials.

11. The effective teacher employs selective rather than mass approaches to drill practice. The traditional plan of having all class members practice on the same drill lines and in the same manner does not provide for individualized instruction. The concept of selective practice gives each student the chance to

pinpoint his own weaknesses and then practice on those factors in a special way. It is always easy to separate the ones who need speed emphasis from those who need accuracy emphasis by setting an error tolerance (those above the limit will stress accuracy procedures, those below, speed). Also, whenever copy is used which is stressing a couple of motions, each one practices in the area of demonstrated weakness. This whole concept is certainly a logical one, and it is hoped that more drill materials will follow this basic plan.

12. The effective teacher insists upon accurate proofreading habits. Students, teachers, and almost everyone else has trouble with proofreading. The typing classroom lends itself very well to a good program of proofreading skill. In particular, the area of timed writings or straight-copy work provides an excellent base of operations. A number of both positive and negative plans for rewarding good proofreading or penalizing poor proofreading have been employed by teachers. It would seem logical that the teacher use the plan that best fits his own program and then make certain that it is carried out successfully. Some make use of exchange plans, but the majority of teachers seem to feel that the person who types the paper should be responsible for proofreading it accurately. If nothing else, typing teachers should at least stress that the students proofread with the paper-bail method, just as is done in the office. An attitude of unconcern about this important area will leave the typist unprepared to cope with the sort of checking needed in the office. Besides, it is not fair to the conscientious proofer to let others get by with poor proofreading.

13. The effective teacher employs efficient and effective routines. In the skill-building area in particular, it is very important that there be a minimum of wasted time. A good rule to follow would seem to be one of a minimum of teacher and student talk and a maximum of actual typing. This does not mean, however, that brevity of instructions should in any way detract from a clear understanding of each day's projects.

The following are some specific guides that will contribute to an efficient skills program.

Timings are started with a minimum of tension.

Whenever possible, the student is given a choice of several attempts.

The students progress through routine practice materials under the domination of teacher signals.

When a number of timings of the same length are given, the lines should be divided into groups of three and given as a series rather than one at a time.

Spurt timings for speed growth should be for 12-second intervals (these convert to words per minute for every motion and the margin scale can be used for scoring).

For the most part, timings for accuracy should be 30 seconds or 1 minute in length. Students work for as many "OK" timings (errorless) as possible out of a series of three or four.

Selective practice techniques are employed to promote individualized, rather than mass, procedures.

As soon as the first person fills a page, all students are instructed to take a clean sheet.

When using a teacher-dictation plan of words or phrases, it is essential that each typist have a copy of the words being dictated.

In 12-second and 30-second timings in series, three- and five-second pauses are used to avoid confusion while using the stop watch.

The students are told what special drill materials are composed of and the purpose behind each specific unit.

Extremes of speed or accuracy requirements should be avoided, but a good balance maintained.

Grading and evaluation. Typing teachers are constantly concerned about realistic methods of grading and evaluation. The second-ranking area singled out by typing teachers as a constant problem is that of grading. Most teachers seem frustrated about how and what to grade. Grades, like death and taxes, are inevitable. It would seem that grades do serve an important purpose for: (1) the administrator who must supply transcripts for college entrance, as well as the guidance person who has to make certain decisions based upon grades, (2) the student who is concerned about how well he or she is doing in each class and is motivated to better work because of them, and (3) the teacher who realizes that the grades given on any unit of instruction measure the success of the teaching that has gone on prior to the grading process (the teacher is also able to strengthen the instructional program by reteaching and possibly retesting in areas of demonstrated weakness).

Since typing skill is so basic to business life, it is necessary to develop a grading and evaluation plan which will accurately measure acceptable skill performance. There is very little place for subjective grading, or "gifts" of high marks, based upon anything except performance. In order to assure such a plan, the good typing teacher will determine the basic objectives of each course as a first step. Once these objectives are spelled out, it then becomes a matter of determining the composites that are to make up the total evaluation plan. The students can then be informed from the beginning as to how they will be evaluated at the end of the term. Such a definite plan will minimize evaluations based upon teacher stereotyping, favoritism, and the like.

The teacher needs to build lesson plans around the various facets of the evaluation program. The major problem then becomes one of deciding which units to grade and how often. As has often been said, "Typing teachers never die, they just grade away." However, typing teachers should not attempt to grade everything; they must do *selective* rather than *mass* grading. All student papers should be turned in, but the teacher decides which ones are important enough to grade. The student is to do the best job possible on all attempts and should be unconcerned about which ones are actually graded. Probably the most noticeable need at present is for teachers to force themselves to do more and more pupil evaluations at the typing station. Also, the students must be expected, and helped, to do an effective job of self-evaluation!

Any complete plan of evaluation of accomplishment will probably cover the following major components:

1. Techniques. If teachers are going to give active support to the present-day methodology of proper position and technique emphasis, then this area must be part of any total grading plan. Heavy emphasis should be placed on this factor in the beginning stages, and less as the course progresses. *At no time, however, should position and techniques be totally overlooked.*

The technique area is probably more subjective in nature than any other facet of evaluation. However, by using the various kinds of technique checklists, it is possible to come up with a composite rating for each typist. Some teachers have developed rating forms that provide a number of gradations or ratings for each item to provide a more specific evaluation. By using these technique ratings and a few 1-minute timings near the end, it is possible to come up with a realistic grade for each student at the end of the first grading period. Speed and accuracy growth is also very important, but too much emphasis upon them too early could lead to some bad techniques and poor stroking habits.

2. Objective testing. There are a great many fundamental knowledges that the well-prepared typist must master in order to use the typewriter effectively as a functioning tool. Anyone who does not really understand the basic principles of vertical and horizontal centering, backspace tabulation, letter form and placement, manuscript form and placement, and the like, is not going to be a well-prepared typist. There is also a real need for a working knowledge about stationery, carbon paper, ribbons, and other supplies.

Some teachers have been discouraged by the fact that so many students do not realize the importance of these facts, resulting in very low test scores. One solution is to urge students to study the questions all week, take up the test pages the day before, and then hand them out in different order for testing the next day. Under such a plan, the scores tend to be much better, but of course, less weight should probably be placed on them. The important thing is assimilation of knowledges.

3. Timed writings. In spite of the statement that too much emphasis is placed on timed writings, most teachers continue to bring them into the total evaluation during all typewriting courses offered. It is also a well-known fact that the correlation between straight-copy skill and production skill is low, but it seems certain that other values will keep timings in an important spot in most typing programs. In the first place, until a typist can at least demonstrate a reasonable skill on straight copy, he is not going to be able to set any records on his production jobs. In addition, it would seem a shame to take away one of the few items scored in the typing class that *all* members of the class understand.

Timings, if not overdone, are a strong motivating factor. Timings are also standardized and differ only in the manner in which they are scored and graded.

Timings of 3- and 5-minute intervals are becoming standard. There has been a definite trend toward 3's in the first semester, and this could very well extend through the first year in the future. The 5-minute timing is becoming more prevalent, and many doubts are raised about the wisdom of using the 10-minute timings. However, if an industry in the area is still giving 10-minute timings for employment, then it would seem wise to provide some experience with them. The matter of fatigue is important too, and if it is possible to measure those things that are considered important on shorter timings, it seems logical to make use of them and thus provide time for other activities.

There is also an evident trend, after the first term, to move toward some sort of self-improvement scale rather than set standards for each term. Set class standards lack flexibility, and the student far below the set minimum becomes frustrated, while the ones over the top levels do not see the need for an all-out effort. The self-improvement scale challenges all students to try for improvement goals no matter what their starting base might be.

The scoring of timed writings has always provided plenty of controversy as to the best method to employ. The following are the most common ones advocated in recent years:

NET WORDS PER MINUTE. This is the oldest scoring method now used, and it calls for a deduction of 10 words for each mistake from the gross score. The 10-word penalty is supposed to represent the time it would take to make an erasure. Many feel that this heavy penalty forces accuracy. Those opposed feel that it is much too drastic for a beginning group and that it penalizes the slow typist more than the fast one. Also, the assumption that the penalty compensates for erasing time cannot be that standardized for all typists. Researchers object to the plan because it represents a composite score of a reliable speed measure with an unreliable accuracy measure. Even though this scoring plan is still very widely used, especially in second-year typing, it would seem advisable for teachers to seek a more realistic measure.

CORRECT WORDS PER MINUTE. Under this method of scoring, only one word is deducted from the gross score for each error. Some favor it because it eliminates the overpenalizing effect for beginning and slow typists. Opponents point out that the penalty is too light and leads to pronounced inaccuracy when used beyond the first stages. This plan has been fairly well discarded at present.

MAILABLE WORDS PER MINUTE. Here, the student adds on a certain number of seconds for each error to the total time of the timed writing. The number of seconds used is based upon the average time established for various course levels. This method is probably the most realistic in theory; however, in practice, it has few supporters because of doubts about the time penalties and the complicated nature of the scoring (even with tables).

PERCENTAGE OF ACCURACY. In this plan, the total number of errors are subtracted from the total words typed and that result divided by the total words typed. Proponents point out that this method relates accuracy to the rate rather than time. Opponents point out the complicated nature of the scoring (unless a truly simple scoring table is provided) and that the final score often gives a distorted figure for the student (what looks like a good score may turn out to be only a "D" grade).

NET PRODUCTION RATE. This plan calls for the erasing of each error as it is made. The student gets experience in erasing, sees the cost of inaccuracy, and is able to gain more skill in erasing. Those teachers who are opposed point out that the quality of erasing suffers and the undetected errors require some sort of separate handling.

GROSS WORDS PER MINUTE. This method makes no deduction for errors. Total words are divided by total minutes of typing to obtain a score. However, a separate and fluctuating scale for errors is normally used to eliminate excessive inaccuracy. In this manner, an increasing rate scale can be tied to a decreasing error tolerance as the typing instruction progresses. Timings which exceed the error tolerances, then, are considered to be unsatisfactory.

Many teachers supplement this plan with an error-cut-off plan that allows a similar error tolerance, but anything over that is disregarded. No penalty is assigned for errors within the tolerance, thus always providing for some kind of score. Critics point out that any scoring plan should evaluate total performance regardless of the tolerances, and that once the limit is reached, all incentive ends. Those who favor the plan, however, point out that it motivates each individual to guide himself much more effectively to reach a good balance of performance. They also point out that timings may be scored from either the top or bottom, and that over a long period of time, each student will obtain as accurate an evaluation as under any plan. The scoring is also simplified with attention to only the one mathematical score.

It would seem that typing teachers should now tie their scoring device on 3- and 5-minute timings to a *gross*, rather than *net*, rate and with some sort of fair and efficient plan for handling error tolerances.

PRODUCTION WORK. The major objective of any typewriting course has to be the development of a usable skill in doing all those job tasks that are encountered in business and personal-use activities. The "skilled" typist must be able to apply basic skills and techniques to the production of office-type projects within realistic *quantity* and *quality* standards of performance.

Throughout the history of typewriting instruction, this area has received the most criticism. Time after time, critics have pointed to the lack of proficiency in production work. It has only been within the last few years that significant gains have been made in the development of production competencies.

Even though simple production problems appeared in early typing texts and teachers were urged to time students on them, few teachers bothered to do so. Projects were assigned without any time limitations, no restrictions were imposed on starting over, and the evaluation was usually strictly on an error-per-job basis. It is little wonder then that the students shifted into slow-motion typing to assure themselves of a good grade for accuracy only.

For a time, teachers applied grades on production exercises on the basis of a percentage of straight-copy basis. Each area was assigned a scale of percentage rates for the top grade on down. For example, a top grade on letters might call for 75 percent of the straight-copy rate. The problem here became one of assigning realistic percentages for each task and also the fact that this method did not account for the variations in the difficulty of the task being performed.

Some teachers have attempted to get at the production problem by using mailability as a dominant criterion. The difficulty here has been the problem of getting teachers to agree as to what really constitutes a mailable project.

Another plan calls for the typist to compute his total time on a set of jobs (like on a power test). Sufficient time is allowed for most of the class to finish. The actual scoring may be one of positive points for accurate lines or a penalty point plan based upon major, minor, and typing errors. Even though the factor of time is incorporated, it is very hard to assign different weights to the various time intervals.

Recent research studies and articles written by leaders in typewriting are pointing up the fundamental concept that true production development requires a *quantity* (time) evaluation as well as a *quality* (accuracy) evaluation. Teachers seem to be ready to accept this concept *now*, and things look much more hopeful in this important area.

Scoring plans have been developed to incorporate both time and quality of performance into each production activity. The extra service-key manipulations required within each task have also been tied into these scoring devices. The major need for the future is to develop some sort of functional measure of the time required for the individual to think through and to get set up for various tasks. This can be measured somewhat by using the total time used on a given project, but here again, it is difficult to evaluate these total times in a functional and fluctuating manner.

At any rate, the busy-work concept which existed for so long, especially in advanced classes, is being cast aside by progressive and skill-conscious teachers. This deadening concept is being replaced by one of frequent timings on production tasks and supplemented with some form of points for untimed attempts.

METHODOLOGY TO MEET PROBABLE FUTURE CHANGES

Much could be written about the many new ideas, classroom materials, equipment, and curricular changes that are being proposed for typewriting instruction. Space limitations make it necessary to comment only briefly on some of the more dominant factors.

Individually prescribed instruction. Through this approach, the student is able to select learning materials based upon his own needs rather than to be exposed to the same materials done in the same way as every other member of the class. The behavioral goals for each stage of development are met through constant measurement and self-analysis, with alternative learning materials designed to meet personal and specific needs.

Programmed instruction. More and more programmed materials are being made available for typing classrooms. These materials are based upon the principle of presenting small units of learning that contain a stimulus and response, with immediate reinforcement of the correct response. These materials provide an opportunity for each student, whether a slow learner or an accelerated learner, to progress at his or her own rate.

Proofguides. Action research studies over a period of several years have led to a new concept of placing the solution to all tasks in the hands of the student. The student is then able to check each task in detail through use of the facsimile copy and again receive immediate reinforcement from correct responses.

Attention to slow learners. The above concepts are beneficial to all members of the class, but in addition, there is much concern being shown about the plight of the disadvantaged and the slow learner. Special learning materials and methods of teaching are being developed specifically for this group. There is a very definite need for providing teachers with special training in successfully coping with these students.

Electronic typing classrooms. The use of multiple-listening stations and tapes is not a new concept, but it has been used mostly in shorthand classrooms. At present, however, there is a definite trend towards also using some sort of play-back equipment in typing classrooms. In addition to the more typical wired or nonwired classrooms, there is a strong movement toward individual cassette players at each typing station.

Typing carrels. Innovative teachers and administrators around the country are beginning to think about and develop teaching centers or carrels. These carrels may consist of a simple program of audio and tapes, combined with programmed learning materials. It is conceivable that carrels of the future may be computer assisted with a special training typewriter and viewing screen, a mechanical pacing device, an automatic timer, an error analysis device, a scoring device, and similar developments. Some of these developments may be far in the future, but they are not out of the realm of reason.

Mechanical pacers. Tachistoscopic procedures and the various adaptations to them have been available in typing for many years. However, most of these programs have been geared to the total class, or two or three groupings at the most. Pacers are now coming on the market that are designed to be used at each typing station so the individual can have the full advantage of the equipment and progress on his own without restriction.

Television, video tape, and computer-assisted instruction. Open and closed television programs have been used for many years to teach typewriting. Video-tape programs are now receiving more and more attention as a means of improving instruction. It is felt that computer-assisted programs will eventually contribute much to individualized instruction (this type of instruction in all areas usually calls for the use of a typewriter keyboard of some sort). The chief deterrent to immediate adaption of such instructional procedures lies in the factor of high costs.

Elementary typewriting programs. There has been a very strong resurgence of interest in teaching typing to elementary students. Just as with the junior high school typewriting movement, it comes from a series of experiments covering a period of many years. Whether the instruction comes in the typical classroom situation or in individual carrels, much needs to be done to insure that the instruction given will be based upon sound methodology.

Flexible scheduling. Flexible scheduling, with its modules of various lengths, has come on strong in recent years. There seems to be a universal feeling among typing teachers that the skill courses do not adapt as well to the shortened periods and infrequent meetings as do other courses. In many schools, attempts are being made to provide more class time to develop the necessary skills in typewriting.

The large classroom. In some areas of the country there has been a movement toward increasing the number of typing stations in each classroom. For the most part, typing teachers are quite opposed to simply adding more students without some sort of additional instructional assistance. Possibly through the use of team teaching, programmed instruction, multiple-listening stations, video tape, overheads and transparencies, and some of the other programs already discussed, ways can be found to cope with larger groups.

Overhead projection. The overhead projector and transparencies have become universally accepted in typewriting classrooms. Most schools are equipped to produce the transparencies, and more commercially prepared volumes are becoming available. Through this medium, the typing teacher is able to supplement his teaching with a clear visual presentation of the factors involved in each teaching unit.

The various areas that have been presented here illustrate the philosophy of the importance of *learning* as well as *teaching*. None of them are designed to replace the teacher, nor do any of them warrant the thought that the teacher no longer need be well prepared and willing to provide the "meat" that is needed to make these concepts function. The typing teacher of the future will have to be able to select, evaluate, interpret, and guide students, while making certain that the basic objectives are well presented to, and mastered by, each person in the classroom.

CHAPTER 8

Shorthand

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It is not surprising, considering the continuing popularity of shorthand and its place in the business curriculum, that so many teachers have attempted research studies analyzing some phase of shorthand or transcription. What is surprising, however, is the small number of significant studies which have been available in the area of teaching methodology until the 1960's. Liles emphasized this point when he stated that "more so-called 'accepted' principles of teaching methodology in the field of shorthand exist without any objective evidence based on sound research than in any other business subject."[1]

For the past 35 years, shorthand teachers have tended to base their teaching practices upon recommendations presented in the teachers manuals accompanying the shorthand texts, deviating from these suggestions slightly as they found other techniques they preferred or which they felt secured better results. Unfortunately, teachers have all too often taken for granted that any statements about methodology appearing in print must be based on scientific evidence, when as a matter of fact, they have ordinarily been based on nothing other than opinions and beliefs.

In the early 1960's, however, a few writers in the field of shorthand methodology began to question some of the teaching procedures which had previously been advocated. They pointed out that many of the procedures on which shorthand methodology was based had not been adequately tested. In fact, many of them had not been researched at all. Some of the procedures which the writers challenged most vigorously were these:

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[1] Liles, Parker. "Issues in Teaching Shorthand," *Balance Sheet* 45:52-57; October 1963.

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1. A shorthand outline which can be read is a correct outline. They wondered if the manner in which a shorthand outline was written might not have an important bearing upon the student's achievement in shorthand dictation and transcription.

2. Students do not need to master shorthand theory. Most writers agreed that the memorization of rules was unnecessary, but questions were raised about the difficulties students encountered in constructing unfamiliar outlines when they had no knowledge of shorthand theory.

3. Delay the introduction of writing as long as possible. It was pointed out that students were eager to learn to write, and the initial interest in the subject might be lost through lengthy delay in introducing writing. Questions were also raised about the feasibility of using different approaches with different age groups. The idea that students who had read thousands of words of correct shorthand outlines would automatically produce accurate shorthand outlines when writing was introduced was seriously challenged.

4. Defer new-matter dictation until all new theory has been presented, preferably until the second semester. Some writers believed that introducing new material early would have no adverse effect upon the students' progress so long as the material did not incorporate principles of theory not yet presented.

5. Have students take dictation with their books open throughout the first semester. Recently some authorities have questioned the idea that the student was "growing" even though he might be copying all the material from the book rather than attempting to take the dictation. They point out that, by the end of the semester, the text might have become a crutch which would seriously interfere with the development of the student's shorthand dictation skill in the future.

6. Never give word list tests. Those persons who felt that the building of a shorthand vocabulary was important believed that timed, dictated word list tests could be an effective means of emphasizing correct outlines and, if properly administered, would be beneficial rather than harmful to the students.

7. Reading rates are unimportant. Some writers indicated that they had found those students who had the highest shorthand reading rates were also the students who built the highest dictation rates.

8. Copy shorthand plates only once. A number of writers have expressed the opinion that greater mastery of shorthand resulted when students copied their shorthand plates twice or even three times.

9. Never have students write shorthand from print. Some writers indicated that they had secured excellent results by having their students first copy the shorthand plates for their homework and then write the same material from the transcript in the back of the text. They found this type of practice forced the students to concentrate upon the material they were writing.

10. Do not observe students as they take dictation. Many authorities questioned this statement. They believed that only by observing their students could they properly assist them in their skill development.

11. There is no such thing as "cold" notes. Authorities, in questioning this statement, pointed out that, had the students written correct Gregg outlines when taking dictation, then the outlines should not become "cold." But since the manual had emphasized that students were not to be given word list tests and that little emphasis should be placed on "textbook" outlines, the students were often unable to read their notes even a short time later.

These writers have made an important contribution to shorthand methodology by challenging long established beliefs and practices. As a result, during the 1960's a number of highly significant research studies have been completed which relate to shorthand teaching methodology. Every shorthand teacher should be familiar with the findings of these studies and understand their implications for the teaching of shorthand.

EFFECT OF TEACHING APPROACH ON SHORTHAND ACHIEVEMENT

Teachers have long disagreed as to the one best approach to the teaching of shorthand. The teacher who uses the "functional" shorthand text will insist he is a "functional" teacher while the teacher who uses a "manual" text will insist he is a "manual" teacher. Actually it is difficult to test the superiority of one teaching approach over the other since teachers today do not strictly follow the procedures recommended for either of these methods but in most instances use a combination of the two approaches. This raises some question about the validity of studies conducted to determine whether the manual or the functional method is superior. Research studies conducted in the 1940's and 1950's were usually inconclusive because of insufficient cases, inadequate control of variables affecting the teaching approach, and bias on the part of the investigator. Recently, however, many of the teaching procedures used in the shorthand classroom have been carefully analyzed under experimental conditions. In a number of investigations, a single practice about which there has been controversy has been isolated for study, while in at least one instance, a number of such procedures were tested in one study. This chapter will discuss the specific procedures that have been analyzed and indicate the implications of the findings of these studies for the classroom teacher.

Pullis conducted an experimental study in which he analyzed the results obtained through the use of two different approaches to the teaching of shorthand.[2] In the experimental group the teaching approach was basically the manual or science-type approach. Students were encouraged to write theoretically correct outlines; were given word list tests weekly; introduced to writing in

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[2] Pullis, Joe M. "Methods of Teaching Shorthand: A Research Analysis." Project No. 8-G-016, Office of Education, Bureau of Research, U. S. Department of Health, Education, and Welfare, 1968. Ruston: Louisiana Polytechnic Institute. (Unpublished)

Assignment 6; were not permitted to keep texts open while practicing familiar dictation; were introduced to new-matter dictation during the fifth week; were observed closely by their teachers as they took dictation; were instructed beginning with the fourth week to write their homework twice, once from the shorthand plates and once from the English transcript; were timed on reading rates every two weeks; and were given practice in reading "cold" notes. In the control group, teaching procedures closely followed those recommended in the functional or language arts approach emphasis on ability to read shorthand notes, no theory tests; writing introduced in Assignment 19; texts open while practicing familiar dictation; no new-matter dictation until all shorthand theory had been introduced; no close observation of the students' writing habits; homework written only once from shorthand plates; no timing on reading rates; and no reading of "cold" notes.

Pullis found that at the end of the first and second quarters, there were significant differences between the control and experimental groups in shorthand dictation achievement, shorthand accuracy, and in shorthand transcription ability, with each of these differences favoring the experimental group.

Implications: It would appear that many of the traditional procedures of teaching shorthand may be highly effective. Teachers should consider carefully the results of the foregoing study before accepting the claims made about the effectiveness of teaching procedures that have not been adequately tested. Many teachers have wondered whether changing one variable in their teaching approach would impede the progress of their shorthand students. In this case, nine procedures which would not be acceptable in a class taught by the functional approach were used throughout the quarter. The classes in which these nine teaching procedures were tested performed significantly better in the areas of shorthand accuracy, shorthand dictation, and transcription than did the students taught by the functional approach. Thus, rather than impeding student progress, teachers may be assisting their students in their shorthand achievement when they (1) require the writing of accurate shorthand notes; (2) give word list tests; (3) introduce writing early; (4) do not permit students to follow the dictation in their text, (5) introduce graded new-matter dictation before the shorthand theory is completed; (6) observe their students' shorthand writing practices; (7) have students write their homework twice, once from plates and once from the transcript; (8) time students' reading rates; and (9) give students practice in reading "cold" notes.

Had there been no difference in achievement between the experimental and control groups in this study, teachers might have concluded that it made no difference what teaching procedures were followed language arts or science type. But since there were significant positive differences, all of which favored the experimental group, it is difficult to conclude that the choice of teaching methodology does not materially affect student progress. Unfortunately, teachers often tend to teach the way they have been taught rather than to teach the way research findings indicate they should teach. The teacher must, of course, be convinced that the teaching procedures he is using are the most effective procedures available and that they will secure the best results in his shorthand classes. However, the dedicated teacher will find it difficult to overlook the differences in shorthand achievement reported in this study.

THE RELATIONSHIP OF SHORTHAND THEORY TO SPEED DEVELOPMENT

A basic concept of the functional method of teaching shorthand has been that undue emphasis on shorthand theory would cause hesitation in writing and thus interfere with the student's development of dictation skill. According to this concept, emphasis on accurate outlines creates mental blocks, which cause students to hesitate when they cannot recall an outline automatically. The contention is made that, had there been no emphasis on accurate outlines, when a student encountered a word for which he did not know the correct outline, he would simply construct an outline according to sound, with little or no hesitation. Obviously this contention is subject to a number of questions. Do students actually construct outlines with such fluency? Is it possible that when there has been no emphasis upon building an accurate shorthand vocabulary students might have even more frequent hesitations and perhaps omissions when taking dictation than do those students who have been required to learn accurate outlines?

Three doctoral studies have been concerned with the relationship between shorthand theory (shorthand vocabulary) and shorthand speed development. Danielson concluded that shorthand vocabulary competency was significantly related to shorthand dictation achievement and that, as the students' shorthand vocabulary increased, the rate of taking dictation also increased.[3] However, it should be noted that Danielson was not concerned with the accuracy of shorthand outlines since she defined shorthand vocabulary as the number of shorthand outlines the student was able to transcribe correctly but not necessarily write correctly. Thus Danielson actually found that a relationship existed between the students' ability to transcribe isolated shorthand outlines and their ability to produce mailable transcripts of dictated shorthand contextual material.

In a study analyzing the manner in which individual symbols within shorthand outlines were written, Goetz found a linear relationship between symbol mastery and selected dictation speeds.[4] A significant difference existed in the degree of symbol mastery possessed among groups of students taking dictation at various speeds. It was also noted that the major portion of the students' mastery of shorthand symbols took place during the first semester with relatively little improvement occurring thereafter.

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[3] Danielson, Harriet Ann. *The Relationship Between Competency in Shorthand Vocabulary and Achievement in Shorthand Dictation.* Doctor's thesis. Bloomington: Indiana University, 1959.

[4] Goetz, Leo. *The Relationship Between Symbol Mastery and Selected Dictation Speeds in Gregg Shorthand.* Doctor's thesis. Grand Forks: The University of North Dakota, 1966.

Pullis, in a study of the relationship of shorthand theory to dictation speed development, obtained a correlation of .8326 between the students' ability to write accurate shorthand outlines and their achievement in shorthand dictation.[5] Approximately 69 percent of the achievement in shorthand dictation was found to be directly associated with competency in shorthand accuracy. A positive correlation of .8056 was obtained between the ability of the student to transcribe isolated shorthand outlines and his achievement in shorthand dictation. Thus, approximately 65 percent of the student's achievement in shorthand was directly associated with his ability to transcribe isolated shorthand outlines. The students' achievement in shorthand dictation increased directly with their competency in shorthand accuracy at all speeds from 50 to 140 words per minute with the exception of the 90 words-per-minute level.

Implications. Shorthand teachers should emphasize the building of an accurate shorthand vocabulary, especially during the first semester of shorthand. If the students learn to write accurate outlines from the beginning, they should be able to build their shorthand dictation speeds far more rapidly than those students who consistently write their own outlines. The teacher who gives timed, dictated word-list tests and grades the shorthand outlines as well as the transcript is indicating to his students that accurate outlines are important, and this helps the students acquire the foundation necessary for building dictation skill. It should be noted that unless the teacher emphasizes accurate shorthand outlines the first semester, he cannot expect the students to master these shorthand outlines later. As many students today take one year of shorthand in high school and then secure their advanced training in postsecondary institutions, the high school teacher must realize the important role he plays in the students' future shorthand achievement. A thorough mastery of shorthand theory may make the difference between success and failure in advanced courses.

THE RELATIONSHIP OF ACCURATE SHORTHAND OUTLINES TO TRANSCRIPTION

How important are correctly written shorthand outlines in the production of mailable transcripts? Leslie has insisted that any shorthand outline that was transcribed correctly was a correctly written outline. While the mailable transcript is certainly the ultimate objective of the shorthand program, this definition says nothing about the time that may be required to decipher inaccurately written outlines.

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[5] Pullis, Joe M. *The Relationship Between Competency in Shorthand Accuracy and Achievement in Shorthand Dictation.* Doctor's thesis. Denton: North Texas State University, 1966.

Several research studies during the last 10 years have investigated the importance of accurate shorthand outlines in transcription. Klaseus reported that correctly written outlines were transcribed correctly 86 percent of the time, but incorrectly written forms were transcribed correctly only 59 percent of the time.[6] Of these outlines written incorrectly but transcribed correctly, 42 percent had been written in full. In another study, analysis revealed that 30 percent of all errors made in transcription resulted from the omission of outlines; 33 percent, from incorrectly written outlines transcribed incorrectly; and 7 percent, from incorrect outlines not transcribed. Crewdson reported that there was no conclusive evidence that context alone was a major factor in transcription.[7] Pullis also found a significant positive relationship (r=.9305) between the writing of accurate shorthand outlines and accurate transcription. He reported that approximately 87 percent of the students' ability to transcribe isolated shorthand outlines was directly associated with competency in shorthand accuracy. Achievement in shorthand dictation increased with competency in shorthand transcription at every speed level from 50 to 130 words per minute with the exception of the 90 and 120 words-per-minute levels. He concluded that shorthand accuracy was the major contributing factor to the students' ability to transcribe the outlines written. McKenna also found a positive relationship between transcription achievement as measured by the ability to take dictation and transcribe accurately and knowledge of shorthand theory as measured by word lists.[8]

Implications: The teacher must understand that if his students are to be able to transcribe accurately, they must be able to write accurate shorthand outlines. Context may at times be helpful in deciphering an incorrectly written outline, but context alone cannot be considered a major factor in the production of a mailable transcript. Teachers who urge their students to get something down for every word dictated, even though it is merely a scratch on the paper, may be developing habits in their students which will seriously impede their progress in transcription. Rather the teacher should be emphasizing the building of a storehouse of accurate shorthand outlines. If the student does not know the correctly written outline for a word dictated, he should be told to write the word in full according to sound, since words written in full may be transcribed correctly even though the shorthand outline is inaccurate. Because shorthand accuracy affects speed development and contributes more than any other factor to correct transcription, teachers must recognize the importance of student mastery of shorthand theory early in the course. Incorrect outlines, even though they may be transcribed correctly, cannot be ignored when they interfere with speed development.

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[6] Klaseus, Richard C. *An Analysis of Some of the Factors That Contribute to the Difficulty of Transcription Materials in Gregg Shorthand Diamond Jubilee Series.* Master's thesis. Mankato, Minnesota: Mankato State College, 1961.

[7] Crewdson, Norma N. *A Comparison of the Effect of the Accuracy in Transcription from Outlines or Context.* Master's thesis. Minneapolis: University of Minnesota, 1963.

[8] McKenna, Margaret A. *An Experiment To Determine the Effect of the Early Introduction of New-Matter Dictation in the Teaching of Beginning Shorthand to College Students.* Doctor's thesis. East Lansing: Michigan State University, 1966.

HOMEWORK PROCEDURES

With the introduction of shorthand laboratory equipment, tapes, and records, many teachers have wondered whether copying from shorthand plates was always the best procedure for homework practice. Certainly copying shorthand plates insures that the student writes correct outlines. However, teachers know from classroom experience that it is not unusual for a student to do his shorthand homework without deriving much benefit from the time devoted to this practice. The following day the outlines seem to be as foreign to him as though he had not copied the shorthand plates at all. Various other techniques for homework practice have been reported in research studies completed during the past decade. Hanson found that first-semester college shorthand students who copied their homework from the shorthand plates in the text had a better mastery of shorthand principles than those students who practiced their homework from recorded dictation with their textbooks open.[9] Neither method was found superior in the development of reading ability, in developing skill in writing practice-matter dictation, or in developing skill in writing new-matter dictation. On the other hand, in another study in which the shorthand homework was programmed, Waters found that these materials aided the students in constructing new words and in developing shorthand writing speed.[10] The investigator concluded that programmed homework helped to meet individual differences in learning rates and was effective in presenting new vocabulary.

Rittenhouse, in analyzing the effect of using a workbook in the homework practice of college shorthand students, reported that adding the workbook to the conventional homework practice did not significantly affect shorthand performance.[11] There was no significant difference between the students who used the workbook for supplementary homework practice and those who used the conventional homework practice (copying shorthand plates).

Implications: It is highly probable that students need the experience of copying large quantities of shorthand plate material in the early stages of shorthand skill development. Copying shorthand plates—if it is correctly done—does provide the student with correct, well-proportioned outlines and, since the writing practice is supposed to emphasize the theory presented in that particular lesson, students should have an opportunity to write many different words incorporating the new shorthand principles. Recorded dictation for homework or out-of-class practice may be of much greater benefit during the second or third semesters when all theory has been presented and the emphasis is primarily upon skill building. The amount of research in this area is still limited, but considering the importance of accurate shorthand outlines, teachers should probably delay the use of recorded new-matter dictation outside of class until the second semester or at least until the shorthand theory has been completed.

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[9] Hanson, Robert N. *Visual Stimuli Versus Combined Audio-Visual Stimuli for Out-of-Class Practice in First-Semester College Gregg Shorthand.* Doctor's thesis. Grand Forks: The University of North Dakota, 1966.

[10] Waters, Max. "An Experimental Study of Programmed Shorthand Homework." *Journal of Business Education* 40:75; November 1964.

[11] Rittenhouse, Evelyn Jane. *A Study of Certain Factors Influencing Success in the Learning and Achievement of Shorthand.* Doctor's thesis. East Lansing: Michigan State University.

NEW-MATTER DICTATION

According to proponents of the functional approach, new-matter dictation should be delayed until all the shorthand theory has been presented and preferably should not be introduced until the second semester. Recently teachers have begun to wonder whether earlier introduction of new-matter dictation would indeed be as harmful as has been claimed. Since many schools offer only one year of shorthand, it simply is not feasible to delay new-matter dictation until the second semester. In two recent studies in which new-matter dictation was introduced early in the course, it was reported that this early introduction of new-matter dictation did not result in increased ability to take and transcribe such material accurately. However, neither did early introduction of new-matter dictation interfere with the students' ability to take and transcribe new-matter dictation. Pullis found when early introduction of new-matter dictation was tested together with eight other procedures, better results were obtained in shorthand dictation, shorthand accuracy, and transcription.

Implications: Since early introduction of new-matter dictation neither contributes to nor interferes with the student's ability to record and transcribe such material, teachers should feel free to introduce graded new material at whatever point they prefer. They should not, of course, give new-matter dictation which includes theory principles not yet presented. Neither is it suggested that they devote entire periods to new-matter dictation. One short letter is often all that the teacher will have time to dictate after presenting the new shorthand theory and drills on the day's assignment. Most shorthand authors would probably recommend that the major portion of the first semester be devoted to material the student has practiced as a part of his homework, but at this time, there is no evidence to indicate a teacher should not introduce some graded new-matter dictation early in the course if he wishes.

LENGTH OF THE DICTATION

It has been stated many times in the past few years that three-minute and five-minute dictation tests measure the same skill—that if a student can pass a three-minute dictation test at 100 words per minute with 95 percent accuracy, he can also pass a five-minute test dictated at this same rate. These claims were originally made as a basis for reducing the length of shorthand dictation tests from five to three minutes. The question immediately arose whether the statement was in fact true. Many people have doubted that this claim could ever be supported by scientific evidence. In 1965 Pullis conducted a study to determine whether a three-minute and a five-minute dictation test measured the same degree of shorthand achievement. None of the students in his study attained their highest dictation rate on a five-minute test. The median average difference between the two lengths of dictation tests was 20 words per minute; the mean difference, 16 words per minute. Of the five-minute dictation tests that were not passed, there was a high concentration of errors in the last two minutes. It could not be determined whether this was because of insufficient skill to maintain the writing speed for five minutes, whether transcription was more accurate during the first three minutes because of reliance on memory, or whether the students realized they had not passed the test and therefore became discouraged before completing the transcription. Possibly a combination of these factors caused the increase in errors during the last two minutes. As might be expected, the students who achieved the highest dictation rates on three-minute tests also achieved the highest dictation rates on the five-minute tests.

Implications: Whether the shorthand teacher uses three- or five-minute tests to measure shorthand dictation achievement is not so important as an understanding of what the test actually does measure. Obviously teachers cannot compare the standards attained by their students unless such variables as the length of the test, the difficulty of the material, the rate at which it is dictated, and the accuracy required are all comparable. The teacher who uses five-minute dictation tests with a 95 percent accuracy requirement should realize that his standards are approximately 20 words per minute higher than the teacher who uses three-minute tests with a 95 percent accuracy requirement. Considering the number of students who continue their shorthand training in junior college or who transfer from a junior college to a senior college, such understanding is essential. It is recognized that not all teachers can or would want to use the same standards in shorthand, but much less confusion would result if teachers understood better the importance of the variables involved in shorthand standards. Three- and five-minute dictation tests do not measure the same amount of skill. A difference of 20 words per minute is not negligible.

DEFERRED TRANSCRIPTION

The statement has frequently been made that "there is no such thing as cold shorthand notes." Some teachers have wondered, if this is true, why their students seem to have so much difficulty transcribing notes they had written some time previously. Other teachers have wondered where they failed in their shorthand teaching. Obviously this is a statement that needs clarification. As has been pointed out previously, Leslie says that any outline which can be transcribed correctly is a correct shorthand outline. Further, if an outline can be transcribed correctly immediately after the dictation is given, it can be transcribed just as accurately a month afterwards. However, this completely overlooks the possibility that students may rely upon memory to some extent when they transcribe their notes. Many teachers have challenged this claim, but not until recently has research attempted to prove or disprove it. In 1968 Pullis studied the effect of deferred transcription in shorthand. The students were given a five-minute dictation test at a rate well within their recording ability and were asked to transcribe their notes. One week later the students were again asked to transcribe these same notes. Although the students had previously transcribed these notes, there was a 36 percent increase in errors when the notes were transcribed a week after they had been recorded. Clearly the students were not able to read notes that they had previously read. Analysis of the shorthand outlines revealed that in nondeferred transcription an incorrectly written shorthand outline was more than 40 times as likely to be incorrectly transcribed as was a correctly written outline. When the transcription was deferred for one week, a correctly written shorthand outline was more than 60 times as likely to be correctly transcribed as was an incorrectly written outline.

Implications: Teachers are right when they insist that their students' shorthand notes do become "cold." Notes that students can transcribe correctly immediately after taking the dictation cannot necessarily be transcribed accurately at a later time. Teachers should realize that accurately written shorthand notes greatly increase the likelihood of a student's being able to transcribe his notes correctly after they have become "cold."

Undoubtedly one of the weak spots in the training of future stenographers and secretaries has been the failure to provide practice in transcribing "cold" notes. The stenographer or secretary cannot always transcribe her notes immediately after they are recorded. Students should be given practice in transcribing "cold" notes. Such practice will indicate to the student the importance of writing accurate, legible shorthand notes at all times.

SHORTHAND DICTATION LABORATORIES

In the early 1960's many extravagant claims were made regarding the outcomes that could be achieved through the use of shorthand laboratories. Teachers were told that they could expect students to attain significantly higher rates in less time and that the higher student achievement in shorthand would more than justify the cost of the installations. Today shorthand laboratories are highly regarded as an instructional tool by many shorthand teachers, but not necessarily because of the claims originally made for this equipment. Most research studies have not supported the claims of those who insisted that, because of the individualized instruction made possible by the listening stations, students would attain higher dictation rates in shorter periods of time. In studies of shorthand classes taught by teacher dictation versus classes in which shorthand laboratories were used, no significant differences in student achievement were found. One investigator did report that, when superior students were taught shorthand and a shorthand laboratory was utilized, they developed a usable shorthand skill in one year. However, the question then arises whether such superior students would not have developed a usable skill taught by the traditional method. As yet, the research findings relative to the effectiveness of shorthand dictation laboratories are disappointing, but it is possible many teachers have not yet learned how to make the most effective use of this equipment.

Implications: Since it has been found that a knowledge of shorthand theory is best learned by copying shorthand plates, teachers probably should not ask students to attend a shorthand dictation laboratory during the first semester unless special learning tapes have been developed for such students. Dictation tapes that ordinarily are available do not appear to be the best type of practice outside of class during the first semester of shorthand. Excellent learning tapes can be developed, but this is a time-consuming procedure, and few teachers have time to prepare them.

It is quite possible that dictation laboratories have often been installed on the basis of fallacious claims. There are many reasons for using shorthand dictation laboratories other than to enable students to build their dictation rate more rapidly than they would do otherwise. The dictation laboratory enables the student to take dictation at a rate that is right for him, and it frees the teacher to work with individual students needing assistance. However, the dictation laboratory is an "assistant." It should not be used continuously day after day throughout the entire class period.

The disappointing results of research studies in this area emphasize the need for attempting new ways to utilize the equipment more effectively. The equipment cannot teach. Students need previews and postviews of the material they are recording. At present it appears that the dictation laboratory will not necessarily enable students to achieve higher dictation rates in less time, but it can make the shorthand period more interesting and profitable for both the student and the teacher.

SIZE AND LENGTH OF SHORTHAND CLASS

During the past decade the professional literature has emphasized that teachers of skill subjects should encourage each student to compete with his own record rather than permit students to compete with each other. Many teachers would agree that this recommendation is sound. However, some teachers have long suspected that regardless of the teaching procedures used to encourage students to try to compete with themselves competition among students continued to exist. Extremely small classes seemed to be far more difficult to teach than somewhat larger classes.

Recently, it was reported that first-year shorthand students achieved significantly better in classes with 21 or more than did students in smaller classes. In second-year shorthand, students did significantly better in classes with 16 to 30 students. Both first- and second-year students did better in classes that were 55 minutes in length than did those in classes of other lengths.

Implications: While few teachers would question that it is wise to have each shorthand student compete with his own previous record, the fact remains that in skill classes competition is built into the classroom situation. Students are motivated by each other. Consequently, not only will the shorthand teacher ordinarily find extremely small classes difficult to teach, but he will find that the achievement of his students is far below what he might have expected with such a low student-teacher ratio. It appears that in skill courses the motivation and "built-in competition" that occur among the students has a positive effect upon shorthand achievement. Apparently, shorthand classes can actually be too small for best results.

Additional research is needed to substantiate the findings regarding the results achieved in shorthand classes of varying lengths. With the emphasis today upon modular scheduling and the variation in length of class periods found in different school systems, teachers need to know the length of period which produces the highest level of student achievement.

SHORTHAND ACHIEVEMENT IN SECONDARY SCHOOLS

Recent research studies continue to support the conclusions of previous investigations that students with only one year of shorthand do not, in most cases, utilize shorthand on the job. These studies also show that very few students are able to take dictation at 80 words per minute for three minutes with 95 percent accuracy at the completion of one year of instruction and that well under 25 to 30 percent of the students completing two years of instruction can pass a three-minute dictation test at 80 wpm with 95 percent accuracy. These findings support earlier findings reported by Frink, Anderson, Bright, and others.

Implications: If the findings reported in these research studies are typical of shorthand achievement in most schools, then teachers may have serious difficulties justifying the shorthand program in many schools unless this situation is corrected. A number of factors contribute to the problem of low achievement in shorthand classes. Many students who have little aptitude for a purely academic program may be counselled to enroll in shorthand. Counselors and guidance personnel may not always realize that shorthand is a subject that requires at least average mental ability. However, in schools where this is the case, the business teacher certainly has a responsibility to educate the guidance counselors.

Currently there is considerable pressure upon school administrators to provide programs to upgrade the disadvantaged. Unfortunately too many parents are more concerned that their children enter white collar occupations than they are with the probable success of their children in these areas. As a result, due to parental pressures, many youngsters are forced into programs for which they are ill-suited and with which they cannot hope to cope successfully.

In some small schools, vocational office programs have been introduced where neither the size of the school nor its location can justify such a program. In these schools, the teacher is forced to enroll in the shorthand program students whose academic record indicates clearly that they should not enter the program. Teachers fully understand that they must retain these students in the program so that the school will be eligible for federal funds.

It is also possible that teachers today may find it increasingly difficult to reach acceptable standards because of the economic conditions in which today's youngsters have been raised. In many schools the girls simply attach little importance to the need for securing a job upon graduation from high school. Although statistics show these girls will probably be working a good portion of their lives, they do not believe it. Frequent class interruptions and administrative pressures to pass all students regardless of achievement may also make the high school teacher's efforts to maintain vocational standards in shorthand well nigh impossible.

High school teachers need to realize, in the face of these conditions, that there is a definite possibility that future enrollments in shorthand at the secondary level may decline while shorthand enrollments in business schools and junior or community colleges increase. When a person sees the need for developing a skill, he is far more likely to spend the time and effort required. Consequently, the trend to upgrade the stenographic training to the postsecondary level may prove to be highly desirable. Such upgrading should also provide the employer with a somewhat more mature office worker.

From the foregoing analysis, high school shorthand teachers should not infer that shorthand will not be offered on the high school level in the future. But there is some question as to how long shorthand can continue to hold a prominent place in the high school business curriculum unless terminal standards are improved. A vocational skill should equip a person to secure a job utilizing that skill upon graduation from high school. All too often in the past the high school graduate has not secured a job utilizing this skill. Whether this situation exists because of lack of vocational competency, immaturity, lack of confidence on the part of the graduate in his skill, or failure of the graduate to apply for a job in which use of the skill would be required cannot be definitely ascertained. But the findings of research studies as to the utilization of high school shorthand continue to be disappointing.

SUMMARY

The findings of research studies in the field of shorthand are of limited value unless the classroom shorthand teacher is aware of these findings and utilizes them in his classroom teaching. The findings of the research studies completed during the 1960's which appear to have the most significance for the classroom teacher are summarized below:

1. Teachers who use the science-type approach in the teaching of shorthand will probably secure results equivalent or even superior to those attained by teachers using the language arts approach.
2. The approach used in teaching shorthand the first semester is far more important in determining the student's later shorthand achievement than has generally been realized.
3. The writing of accurate shorthand outlines should be stressed throughout the first semester.
4. Since accurate shorthand outlines contribute both to the building of dictation skill and to accurate transcription, the writing of correct outlines should continue to be stressed throughout the shorthand program.
5. Timed word-list tests should be given to emphasize the importance of accuracy in writing shorthand outlines.
6. Early introduction of writing does not necessarily impede the student's progress and may even contribute to the attainment of higher shorthand standards.
7. Students should not be permitted to follow the plates in their texts while taking dictation the entire first semester.
8. Teachers should observe the writing habits of their students and assist them as much as possible.
9. Graded new-matter dictation may be introduced either early or late in the semester with no appreciable difference in achievement.
10. Writing shorthand from a printed transcript is not detrimental to the student's progress if he has first copied the same material from shorthand plates.
11. Writing the homework practice twice may be more beneficial to the student than copying the shorthand plates only once.
12. Students do appear to benefit from the timing of their reading rates.
13. Students should be given an opportunity to read cold notes occasionally.
14. There is approximately a 20 word-per-minute difference in achievement between passing a three-minute dictation test with 95 percent accuracy and a five-minute test with 95 percent accuracy when both tests are dictated at the same rate.

15. Teachers will probably find that the use of a shorthand dictation laboratory for "out-of-class" practice is most beneficial after the first semester of shorthand.
16. Special learning tapes for shorthand would undoubtedly be helpful during the first semester for both in-class and out-of-class practice, but in most schools such tapes are not available.
17. The shorthand laboratory should not be used exclusively during the shorthand period.
18. Shorthand classes can be too small. The ideal size for a first-year class may be 20 or more students and for a second-year class, 16 to 20 students.

Some business educators are predicting today that there will be more emphasis on shorthand in the high school programs because of the vocational office education programs which were introduced in the 1960's. Others are predicting that much of the shorthand instruction now being offered in the high schools will move upward to the junior college or community college level. Still others predict that shorthand is rapidly losing ground in the business curriculum; but with today's shortage of stenographers and secretaries, it does not seem likely that this prediction will come to pass in the foreseeable future.

Regardless of the level at which shorthand is taught, the research findings discussed in this chapter should make every shorthand teacher aware of the importance of basing teaching methodology upon research findings. Unfortunately, in the past far too many of the procedures used in teaching shorthand have been based on opinions, not scientific evidence. The teaching procedures used by the beginning shorthand teacher are far more important than has generally been realized.

Recent research findings have repeatedly indicated that the first semester of shorthand instruction determines in large measure the student's accomplishment in the following semesters. If the student does not understand shorthand theory, if he does not build a sound shorthand vocabulary the first semester, there is little chance that he will be able to correct these problems later. The transcription teacher may attempt to correct the deficiencies of the first year of instruction, but research shows that only infrequently will he succeed. Shorthand skill development is directly related to the student's knowledge of shorthand theory and vocabulary. The student's accuracy and speed in transcription are again directly related to his accuracy in writing shorthand outlines. Students will not consider the writing of accurate shorthand outlines important unless teachers make it clear that they also consider accurate outlines important. The ultimate goal of the shorthand program is, of course, the mailable transcript, but the first year of shorthand instruction will determine in large measure the student's chance of attaining that objective.

CHAPTER 9

Transcription

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There are four kinds of transcription teachers, and this chapter is intended for each of them. The changes in methods of teaching transcription in the recent past, the present, and probably the future can be attributed directly to the relative ascendency of each of the four kinds of transcription teachers.

Shorthand teacher. There are transcription teachers who are really disguised shorthand teachers. Their whole approach, their whole interest, their whole perspective is shorthand. The transcription course, to them, should be weighted with shorthand speed-development exercises, because they think that the writer who can almost get 120 will readily get 100 with such easy-to-write and easy-to-read shorthand outlines that transcribing them will be a sinecure. They believe that perfection of outlines is the key to good transcripts, so they recommend all sorts of practice activities that will improve outlines: overkill on speed, word drills, theory tests, practice on cold notes, and the like. They sponsor or do investigations that show the percentage of errors that came from bad outlines versus the percentage from good outlines, etc. The shorthand-centered transcription teacher reveals himself in his concern for the speed at which dictation tests are given. When he says "words per minute," he means dictation speed.

Typewriting teacher. And there are transcription teachers who are disguised typewriting teachers. They see transcription as letter typing, and to them the course is a matter of arranging things so the letters get harder and harder until they are 100 percent from notes on dictated new matter. These teachers want the first transcribing to be simple paragraphs from bookplate notes, then whole letters from bookplate notes, then letters from familiar and practiced outlines of one's own . . . and so on. Because they know that

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shorthand is the most difficult possible copy for a typist, they want the typing—that is, the transcribing—to begin early (the earlier the better). Shorthand teachers don't want the typing to start early because doing so would take time that they feel is needed for practicing the writing of better shorthand outlines; so the typewriting-oriented transcription teachers are likely to sponsor research that shows that yes, one can introduce typing early, and it will not curtail the shorthand growth in the least. When the typewriting-transcription teacher says "words per minute," he means a transcribing rate, and he will usually append a parenthetic expression like "at least 50 percent of the straight-copy typing rate." He is likely to urge that every shorthand student be required to have finished a year or more of typewriting before starting shorthand so that, in case typewritten transcripts are introduced early, the typing skill will be equal to the task.

Language arts teacher. Another kind of transcription teacher is the one who believes that shorthand per se is a mere skill (it is mechanical, just takes drill) and that typewriting per se is a mere skill (it is mechanical, just takes drill); so the real heart of transcription is its language skills—punctuation, capitalization, plurals, spelling, sentence structure, letter organization, and the like. Language-oriented transcription teachers talk about perspective—that the function of transcribing is to convey a message, and the shorthand and typewriting are only cogs in that conveyance, just as commas and semicolons and plural possessives are cogs (maybe smaller ones, but not a whole lot smaller; and even a small one can stall the engine). The language-transcription teacher wants spelling drills and punctuation drills involved in every practice session, wants punctuation included in all read-backs from notes, makes collections of "transcription boners," and in other ways shows his conviction that transcription is applied business English (handicapped a bit by the need to include shorthand and typing). He does not talk about words per minute; he asks only, "Does it make sense?" and "How many mailable letters did you do?"

Vocational coach. The fourth category of transcription instructor is one in which you find the job-oriented vocationalist. He wants the students to visit offices and hear real dictation being given (let the visitors try to record it, too) so that they will learn how much help is or is not given the stenographers, what responsibility accompanies the recording of dictation, what equipment is used, how many carbons are made, what happens to them, and so on. He reasons that students who are alerted to exactly what will be expected of them (plus being shown how pleasant the office atmosphere and human dealings can be) will be motivated greatly toward improvement in whatever aspect of transcription they find themselves to be lagging. If they find the dictation faster than they can manage, they'll beg for faster practice dictation. If they find hangups with punctuation or spelling, they'll see the desirability of drill in such factors. The vocational-coach version of transcription teacher will be primarily concerned about entry levels of skill; his objective is not a new crop of private secretaries once a year but rather several crops of beginning stenographers per year. He wants plenty of office-style dictation. He admits to greater concern for the inner-city trainee than for the suburbanite; he is interested in what the businessman wants but less so than in what the businessman will do for his share of ghetto graduates. He wants training time reduced as much as possible not only so that more crops can be rotated but also so that other factors (like work experience, use of office machines, and the like) can be incorporated in each crop's program. He thinks that the "sense" of a letter is up to the businessman: "If a college graduate businessman can't dictate a letter with sense," he asks, "how can he expect a high school trainee to do it for him?" He telescopes the problem to "Find out what is going on in the local offices and teach trainees to do that," with just as much emphasis on *find out* as on *do it*.

And combinations. Real-life transcription teachers do not, of course, adhere exclusively to the philosophic base of any single one of the four kinds of transcription concepts that are personified in the foregoing. Rather, each teacher adheres mostly to one concept but nevertheless borrows from each of the others. The mixing of philosophies is both a disaster (if there are contradictions within one's mixture) and the hope for improvement (when the best factors of each are recombined).

BACKGROUND OF CONCERN

American business education magazines have always carried articles on transcription, as glancing through the back volumes of the magazines or tallying totals in the annual Delta Pi Epsilon *Business Education Index* will quickly confirm. Concern about achievement, about transcription rates, about spelling, about proofreading, about all the problems of transcription mechanics have always been with us. Interest was high in years past, just as high as today.

The articles normally dealt with classroom management and reflected the kinds of learners that were involved. The learners were ones who had survived to the twelfth grade in public education in an era when students who did not do well could and did quit school; the ones who stuck it out were ardent and able. A typical transcription article was one by Frances Henderson in the February 1950, *Business Education World*. It was entitled "I Wrote It but I Can't Read It," and she listed 13 trick-of-the-trade suggestions about transcription inaccuracies and what one could do to keep students from the lament in the title. After World War II, up to which time transcription (if offered at all) was an experience of a week or two tucked in at the end of the shorthand course, transcription started stretching and in many schools became a formal one-semester course in its own right. A 1947 survey by Renshaw showed that 17 percent of New England high schools had such courses.

Urban problem: retardation. But the 1960's brought a crescendo in the great urban march via which millions of learners with poor academic competencies migrated to the cities and showed up in inner-city schools. Families of average and better students left the inner cities, leaving behind them students whose educational appetite was slack and whose academic competency was very low.

Transcription problems multiplied and multiplied.

The social scene created many delicate circumstances, forcing the schools to relax what had once been firm "requirements." It became possible for learners to advance from one course to the next simply because they had attended enough times. In some instances students who had sat through whole terms of shorthand without learning it had been advanced to the transcription course. A 1970 language-skills survey of 197 students in various shorthand stages in two New York City inner-city high schools revealed the following degree of retardation in the all-over language skills that are vital to good transcription:

Point of Analysis	Grade 10	Grade 11	Grade 12
Cases in sample	69 (100 %)	67 (100 %)	61 (100 %)
At grade level or better	12 (17.4)	3 (4.5)	0 (0.0)
Retarded 1 year or more	42 (60.9)	51 (76.1)	52 (85.2)
Retarded 2 years or more	25 (36.3)	39 (58.2)	23 (37.7)
Retarded 3 years or more	9 (13.0)	18 (26.9)	9 (14.8)
Retarded 4 years or more	3 (4.3)	5 (7.5)	2 (3.3)

This information is indicative of the depth of the problem. No assumption is made that these figures apply everywhere, but they do indicate need for transcription training with less emphasis on added shorthand speed and more on language skills. The figures indicate the kind of crisis to which the 1960's ultimately brought transcription.

The response to the dilemma has been a groundswell of experimentation and research. While the competence of learners slowly but steadily lessened year by year, department chairmen and city supervisors have tried all sorts of means to stem the erosion of accomplishment tried bigger classes, smaller classes; longer periods, shorter periods; more homework, less homework; after-school practice centers with parent aides, with overtime teachers; and explored many other point-of-contact endeavors. Meanwhile graduate students from coast to coast undertook studies.

Research. Many studies were interesting, though the degree of pertinence to the goading problems of the inner-city high school transcription teacher varies. A significant study is the 1967 one by Iannizzi, who went right to the heart of the matter: She found that half the errors made by New York City high school transcribers were related to outlines that were quite correct (so, something beyond good shorthand outlines was involved), and she tallied the errors in classifications that give guidance to New York City teachers on what kinds of reinforcement drills are needed to prevent those errors.[1] (Since then the Delta Pi Epsilon chapter at Hunter College, New York City, has produced its own "Drills To Improve Teaching Transcription" for use with New York City learners.) Using a different doorway, Iannizzi had come to very nearly the same conclusions that Jester had in 195[illegible] when he made a time study of transcribing and found, among other things, that transcribers use only 14.6 percent of their time in shorthand problems deciphering incorrect outlines (6.2 percent), deciphering poor outlines (3.3 percent), and reading their notes preparatory to transcribing them (5.1 percent).[2] Neither Iannizzi nor Jester deprecate the importance of shorthand accuracy; they simply point out that transcription difficulties of the urban child are no more likely to be occasioned by poor shorthand than they are by poor typing, poor work habits, or poor language skills. Nevertheless, there have been far more studies on strengthening the accuracy of shorthand outlines than on any of the other regards or all of them together.

In the areas of new media, as possible avenues for delivering shorthand training in an easier-to-master manner, important and encouraging studies have been made of the use of recordings (homework, dictation laboratories, lesson tapes, etc.) and of programmed instruction presentations of theory and theory review. To date neither area has established conclusive evidence of superiority over teacher-directed learning activities. Each area, however, has established evidence of much worth. Palmer found that certain facets of shorthand practice can be conducted just as well by recordings as by a teacher;[3] and Waters,[4] Hensen,[5] and McBride[6] have found that certain aspects of theory presentation and follow-up practice can be conducted as well by programed printed materials as by a teacher. Recordings and programming both give new hope for achievement of wholly independent progress something that offers enormous adjustment possibilities for learners with handicaps so varied and severe that it is difficult to teach them at a class pace.

Summary. The increase in societal and transcription problems have resulted in a steady dimunition of achievement and a steady increase in the number of researches instituted to find ways to stop that diminution and restore even improve on previous standards of achievement. In general there has been abundant investigation into shorthand accuracy, but there exists imperative need for constructive experimentation in strengthening language skills, in developing transcription typing continuity, and in encouraging the kind of work habits that bring efficiency and aggressiveness into transcription production. The teachers who are primarily shorthand oriented have had their day. The 1970's emerge as the time when the other three kinds of transcription teachers have to stand up and be heard.

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[1] Iannizzi, Elizabeth. *Transcription and Shorthand Errors Among Elementary and Advanced High School Writers of Simplified and Diamond Jubilee Gregg Shorthand.* Doctor's thesis. New York City: New York University, 1967.

[2] Jester, Donald D. *A Time Study of the Shorthand Transcription Process.* Evanston, Illinois: Northwestern University, 1959.

[3] Palmer, Elsie D. *Development and Education of Multiple Channel Tapes in Beginning Shorthand Classes.* Doctor's thesis. Knoxville: The University of Tennessee, 1963.

[4] Waters, Max. "An Experimental Study of Programmed Shorthand Homework." *Journal of Business Education* 40:75; November 1964.

[5] Hensen, Oleen M. "The Development, Utilization, and Effectiveness of Programmed Materials in Gregg Shorthand." *Journal of Business Education* 40:119; December 1964.

[6] O'Connell, Mary Margaret. *An Experimental Study To Determine the Effectiveness of Programmed Gregg Shorthand Materials.* Doctor's thesis. Madison: The University of Wisconsin, 1967.

THE REAL-LIFE APPROACH

As everyone finds who works in an office as a secretary or as the employer of one, transcription in the office is infinitely easier than in the classroom. A learner might not think ahead and realize that it's so, for he is concerned about what he does not know

The employer's expectation (how soon will he expect the letter to be done?), his standards (will he permit erasing?), his preferences (what letter style will he want?), etc.

The employer's dictation pattern (does he keep correcting himself and changing?), his dictation speed (and is it steady or in spurts?), his punctuation indication (and is he right when he calls punctuation, if he does?), his completeness (how much and what does the secretary have to search out dates, addresses, amounts, what?), etc.

The office procedure for mailing (who puts on the postage and how is that done?), distributing carbon copies (and does the secretary have to decide how many to make?), using a photocopier (spare copies that way?), picking up incoming mail, and scores of related questions.

What the learner forgets is that all these concerns will be resolved by the end of the first week on the job. The secretary will know all about the employer's expectations, his dictation pattern, and the office procedures that revolve around the mail. What the learner also does not realize, and many teachers do not realize, is

1. The secretary has read the incoming mail and knows what it is all about. It is not long before the secretary can anticipate the dictation. It becomes easy to fill in missing outlines or to correct poor ones the secretary knows what the employer said or wants to say.
2. The secretary controls the speed of dictation. When the secretary gets behind, raising the left hand momentarily causes the dictator to pause. Interjecting such cue words as "Spell, please" or "Please repeat that name" slows him down, too. The secretary really does control the speed.
3. The secretary soon knows the whole vocabulary of the job the names of the products, the names of the persons, the locations of the branch

stores or offices, the kinds of contract terms that are used in the office's sphere of work, etc. Surprises become fewer and farther between.

4. The secretary does not look up nearly as many items as an outsider might expect because the secretary has a memory and remembers first names of correspondents, which ones have doctorates, ZIP codes of frequently used addresses, dates and deadlines, prices of many items, and so on.
5. "Office-style" dictation is really easier than classroom dictation, once the writer gets the knack of crossing out and arrowing in, and the like. Interruptions are likely to be respites, letting the stenographer review and correct and punctuate the notes. Corrections are usually instantaneous and spontaneous, so that the secretary probably has not yet written what is to be changed and so can incorporate the change without actually changing anything.
6. When the employer asks the secretary to read back something, it is *usually* because he has been interrupted (phone call, drop-in visitor, etc.) and lost his sentence. The secretary has had the interruption time to polish that sequence of words and can read back fluently most times. That's not like the classroom situation where the teacher asks for instant readback before the pen has stopped moving.
7. The secretary usually has the liberty of altering words if doing so resolves a line-ending division problem or side-steps a bad shorthand outline yet still conveys the same meaning. "Has the liberty" probably means that the employer would say "Yes" if asked; but the employer is not likely to remember his exact wording anyhow, so most secretaries just go right ahead unless the word choice happens to be critically important. Men who do much dictating have shorter memories than those who dictate only occasionally.
8. The employer is likely to be a lot easier to get along with than is the transcription teacher. The teacher because it is the teacher's role must always be pushing, pushing, pushing for better, better, better work. The teacher can never be content, never be satisfied with what the learner accomplishes. Few employers are like that. The secretary is someone the employer hires to help him. Most employers and secretaries are good friends, even though a bit on the impersonal side because of the generation gap that usually exists between them. The employer is really more likely to tease than to excoriate his secretary for a transcription boner.
9. The secretary soon can zero in on the problems that recur words the employer is likely to use incorrectly, words that the secretary is most likely to mistype, extent to which the employer will second-guess the number of carbons to be made, habit of the dictator to wait until too late in the day for dictation, the pattern of incoming phone calls (his superior probably calls him about the same time each day, for example), and sundry other transcription interruptions or

complications and take action to alleviate them. The classroom shorthand writer has to sit there and take it, helplessly.

10. In spite of what he learned in his business communication course somewhere along the line, the businessman doesn't really know whether a letter he signs looks nice. He can tell if it does *not* look nice when it is grossly poor—much too high or much too low or much too far to one side or the other, or much too smeary or much too "erasery," and so on—but he doesn't know the names of the letter styles and he doesn't much care. When he reads (if he does at all) a letter he has dictated, it is mostly Narcissism. When he hands a letter back to his secretary and says, "Fine" or "Nice," he means his wording, not the typing.

There are exceptions to each of the "ten blessings" in the foregoing enumeration. Some employers *are* unkind and picky; they are the ones who have a high turnover in stenographic help. Some employers really do know the transcription score, perhaps because they have responsibility in the training sector of their company or are former business teachers, and so they know exactly what they want and are paying to get. Some employers will continually press the dictation speed; and when the secretary does improve because of eventual familiarity with the nature and vocabulary of the dictation, the employer points with pride how much he has helped the secretary. But in the main the employer is a considerate person who will help his secretary to help him more. So office transcription *is* easier than is classroom transcription.

The point. Why not make these or similar real-life blessings available to the classroom learner? Why must he do it the hard way?

It would be easy for one to say, "Sure, fine. All these alleviations should be and will be incorporated into this school's transcription training program." But it cannot be said if the test of the concept is still to be the traditional end-of-course test. If the final test is going to be paced 80-words-per-minute dictation, to be transcribed with a (for instance) maximum two erasures within (for instance) 7½ minutes, none of which has any connection with real-life transcribing, then the teacher is not at liberty to use the real-life blessings. But if the final test will be the dictation of an office-style letter at the best speed at which the learner (who controls the speed) can take the letter, with the transcript (perhaps typed on easy-erase paper) evaluated on its mailability base, then the real-life blessings can be injected to help the learner build truer transcription power.

For instances. The school that is master of its own transcription class, and therefore can adapt methods, objectives, and materials at will, can draw on many real-business circumstances to improve the way transcription is practiced and learned. Many of these circumstances have been and are being explored by a contemporary team of investigators. They have already enjoyed sufficient success to warrant passing on the following for those who can update their courses:

1. STORY LINE. Describe to the learners a business problem that confronts the dictator. (He has to crack down on overdue accounts or go bankrupt, for example. He is going to start with four customers who have treated the company outrageously, and he must tell them he is going to start a collection suit a week from Friday, *unless*.) So the stenographers-to-be know what's up. Outlines for words like *overdue, account, bankrupt, outrageous, collection, suit, Friday, unless, lawyer*, and the like flash through their minds, or better, on the chalkboard, along with other words that they might volunteer as ones that a real secretary in that real situation would know and use often. What a new meaning to "preview" such an exercise would give!

2. LETTER CLUSTERS. It would be too time-consuming, not to mention too unrealistic, to have a story line behind every letter. Instead, have a cluster of letters grow out of the story line. In the preceding example, the dictator is to work on *four* customers. Good! Use those four on Monday, and maybe the next Friday or Monday follow up the same story with replies to simulated answers so that the same vocabulary can be reused and thereby strengthened. Businessmen do not dictate very many one-of-a-kind letters. If letters are clustered, all the practice benefits of each letter augment the values of the others and expedite the others. Practicing one "Pay up or else!" letter makes the next one easier to record and transcribe, and one after that still easier, as it really is in business.

3. PREPARATION PRACTICE. When a stenographer takes dictation on any familiar business problem, the stenographer not only knows the vocabulary and the message but also *has been there before*. The outlines come fluently, the punctuation is familiar ("must remember to put a comma between the day and the date, like *Friday, March 1*"), the length of the letter is anticipated ("wonder whether he'll use the two-paragraph or three-paragraph threat this time"), the duplicates can be remembered ("extra copy for company counsel, too"), and the pace of dictation can be guessed ("It's getting late, and he'll want these out today, so he'll probably speed it up a bit"). It means something to have "been there before."

To give the student the same advantage of having "been there before," assign preparation practice on one typical letter out of the cluster. The letter could be in print or in shorthand, depending on whether the assignment is to be primarily writing or reading, but in either case the learner should know that the letter is typical of the morrow's cluster and that practicing the one letter will actually serve as a good preview of all the letters in the cluster.

4. SYSTEMATIC THEORY REVIEW. The lucky secretaries do not have to change vocabularies every day, the way that students are expected to do, since once the secretary is settled into the job the vocabulary is one vast series of repetitions. But the school cannot anticipate what vocabulary the alumni will be using in stenographic jobs. Even if the school anticipates a fruit vocabulary (because the school is in a fruit-growing belt) or a steel vocabulary (because the school is in a steel-fabrication center), that kind of vocabulary applies only to

outgoing sales promotion and supply purchasing; the real vocabulary is the one that the individual businessman uses in whatever category of duties he executes, thus there is endless variety even locally.

So, to prepare the young transcriber for whatever opening chance brings to him, he needs continuous theory refurbishing. There are at least two ways of doing this. One is to administer diagnostic theory tests every so often (like every other Friday), with remediation assigned on the points of theory that were found weakest. The other method is to build the letter clusters around theory clusters, so that a semester's dictation clusters would guarantee at least, say, two complete reviews of basic theory. Theory review would include, of course, review of brief forms, phrases, and other theory supplementals.

5. DETAILS IN PROOFREADING. For at least the first letter in each cluster, prepare a transparency key that can be flashed on a screen and used for detailed proofreading of the learner's transcript. When the visual is on the screen, the teacher invites attention to all the pitfalls—the spelling of sound-alike words, the punctuation of a long sentence, the display of a component table or quotation, and so on, including the actual wording and paragraphing of the take. One of the common flaws in transcription is the blind directive, "Proofread your work," without a guide against which to proofread for more detail than a chance misstroke revealed in a blatant misspelled word. The new office secretary has a file cabinet full of letters using the employer's vocabulary; reading a score of his letters will help the secretary proofread what comes out of the typewriter in just about the same way that matching one's transcript against a visual on the screen will help the learner to see what was intended.

6. OFFICE-STYLE DICTATION. Some transcription teachers think of "office-style dictation" as a Broadway production, with all sorts of distractions occurring in each letter—telephone interruptions, lost sentences, shouts across the room, "change that" admonitions, "Mr. Whatzisname, *you* know" self-interruptions, and so on. It would be extraordinary if all those things happened in a whole day's dictation, let alone in a single letter. On the other hand, there would be few instances of two consecutive takes without something between them or within one of them that requires a change of outlines.

So if one thinks of "office-style dictation" as a letter stated sympathetically, as though the dictator were watching the stenographer and pausing when the stenographer gets behind, then speeding up when the stenographer is right up with him so that the intent is "to keep the secretary's pen going," and then if some *one* distraction were drawn into the dictation, the dictation would truly be "office style." At first the trainee is likely to be flustered, although less so if he is cautioned in advance that there *will* be a telephone call in the middle of the dictation, or there *will* be an insertion to be made after the letter seems to have been completed, or whatever. With experience the transcription student becomes very adept at doing what secretarial duties require of every secretary:

transcribing office-style dictation. With experience the transcription teacher can become increasingly skilled at pacing the dictation including the distractive breaks so that the learner is gradually pressed into responding quicker and quicker. The teacher might wish to prepare tapes of office-style dictation sequences that learners can take home for practice, to speed up the acquisition of experience; the same recordings might be used in class dictation, too.

7. WORD LISTS. Let students practice word lists, but be sure the lists are linked to a functional purpose tomorrow's dictation, for example, or remedial drill on a weak point of theory. One fruitful exercise grows out of the preparatory letter (No. 3): let learners select 10 or 15 words in it and write those words and two derivatives of each as a word list; collect the lists and dictate one of them as a preview exercise before the next day's dictation on the cluster from which that preparatory letter was selected. Pullis found that practicing word lists was helpful to accuracy in the theory semester;[7] it is probably helpful in transcription courses, too, when the learner sees a clear purpose that is to his advantage. And certainly word-list tests are the quickest and surest way to inventory theory strengths and weaknesses preparatory to remediation of the latter. Word lists have no counterpart in the real world of office dictation, other perhaps than the small list of trade and product words that a newcomer develops experimentally the first few days on the job; so any word lists used in transcription class should clearly serve a preview-to-dictation or analytical purpose.

8. BOOSTER BITS. There are a number of transcribing events that occur in the life of the office stenographer that can be anticipated and given some preparatory practice in the classroom. Every trainee should be given the experience, for example, of guessing the omitted word, based on the context of the sentence or letter paragraph. Teachers can create drills for this practice.

Every trainee should be given the experience of transcribing tomorrow the dictation given today. This is in the sphere of "cold notes," which (like many other facets) are easier in the office than in the classroom. The secretary needs to review only enough of the cold notes to recall the circumstance the story line of the dictation. A student, however, has to struggle literally word by word to recreate the message *and* whatever story line was hinted at by the character of the letter. A student is likely to have a wholly different context with every instance of cold notes, whereas a secretary's cold notes tomorrow are like today's, like yesterday's. In any case, it is sound training to give "cold notes" experience, particularly if the teacher has developed a cluster around a story line big enough to last for several days, so that notes from one of the first days in the sequence could be recalled and retyped, very much as really occurs in an office.

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[7] Pullis, Joe M. *The Relationship Between Competency in Shorthand Accuracy and Achievement in Shorthand Dictation.* Doctor's thesis. Denton: North Texas State University, 1966.

There are moments in office life when the employer wants a rush letter immediately—instantly after dictating it. The secretary types under great pressure. A simulation of this experience would be helpful to future stenographers, too. So, now and then—say, once a week—tell the learner as soon as you have finished dictating the letter, "Transcribe that right away. I am going to time you. Begin." Do time each learner. For this purpose select a letter whose total 5-stroke-words count is known so that you can convert the learner's time into a speed rate. This rate could be most helpfully charted into a weekly speed-gain transcription record or even a race.

Altering words isn't done often, but there are times when "the wrong word" comes at the end of the line. There may have been two or three consecutive hyphened line endings, and the secretary does not want a fourth—but there it is, coming up. Or the dictated word may project the line too far into the right margin. There are many occasions when the typist wishes a different word at the end of the line. Give practice in selecting and using other words, the practice aspect being, of course, to select words of kindred meaning so that there is no change of intent. Give practice also in "melting errors": change a word that starts wrong. For example, if the learner wishes to type *shall* but inadvertently types a *w* first, he might change the word to *will* (just the way most teachers manage to melt errors in their own correspondence).

Teachers overrate the importance of precise letter arrangement and placement on letterheads, but undoubtedly it is better to err on the constructive side than to ignore the matter. Since judgment placement is the goal, have a committee of students screen each day's outpouring of typed letters to select the best looking ones. Posting their selection if it is better than something already on the display panel would do more to make learners aware of the display possibilities and to try for good placement than any number of exercises in using placement charts and visual guides.

The vocational coach's idea of an office visit, to give the learners better understanding of office life and at least a modest degree of sophistication about the facilities in an office, is certainly worthwhile. Such a visit should not be an office tour, however, but rather should be a one-to-one visit with office workers—that is, if a group of 21 transcription students were to go to an office for an orientation visit, each student should be assigned to an individual secretary who takes the visitor to her desk, lets the visitor see how the desk is organized, lets the visitor try her typewriter, shows the visitor the company stationery and forms used by the secretary, lets the visitor listen in on a dictation session (and try to take the dictation if the visitor wishes), shows the visitor how one gets coffee at the coffee cart, and in as many other regards as possible conveys to the visitor a true view not only of facets relative to transcription but also elements relative to the whole excitement of working in an office.

PUT IT ALL TOGETHER

If transcription students can be taught to do transcription as it really is done and if they can have incorporated in their training program all the assets that a real stenographer has going for her on a job, transcription can be much more interesting and successful. A transcription training design that simulates as many as possible of the realities of real dictation will produce far more employable secretaries—whether from inner-city or suburban or private schools—who can do the job than will a program predicated on achieving the goal where a typical student can record 240 dictated words in 3 minutes and transcribe them in letter array in 10 minutes with X or fewer mistakes.

This kind of program has much to be said in its behalf.

1. Individualized. When professionally prepared materials are available which touch all the bases discussed in the foregoing or when an individual school or college has developed its simulation approach to real transcription training and has a full set of materials, they can be used just as readily for the individual or small group as for the large or standard class group. The experience is uniquely one in which each individual must do all the developmental exercises himself. There is no sharing, no important discussion, no interaction beyond the common courtesies of group study. The simulaton design is the ultimate for independent progress.

2. Any level. This kind of program can be developed for any level of instruction—high school, vocational school, private business school, community college, *any* school in which transcription is viewed as a 100 percent vocational program.

3. Future. If the academic qualifications of inner-city youth continue to deteriorate so that the task of the transcription teacher increases proportionately, the simulation approach may be required as the one approach that lets a student advance to vocational qualifications as rapidly or slowly as his competencies permit. If he needs more language drill, then time for programmed drill in language skills will interrupt the transcribing program. If he needs more theory drill or review, then time for that drill will interrupt the transcribing program. Whatever is needed, time can be taken for it. The question is not how long will it take a retarded learner to qualify but rather *can* the retarded learner qualify; and with the design suggested here, the retarded learner *can* qualify—it just takes longer.

The conception of this plan came in the need to do something that other plans did not do: serve the needs of the academically handicapped learner. But well as it serves him, obviously it serves the better endowed equally.

To anticipate reactions:

Vocational coach. This kind of transcription teacher will "buy" the design, for it is exactly what he wants: a curriculum plan that permits the maximum number of neediest persons to qualify for employment the soonest. It contains no gingerbread and no waste; it is direct job training, fashioned to simulate real job performance.

Language arts teacher. This kind of transcription teacher, too, will approve the do-it-as-stenographers-do approach to transcription because they are pleased with the accent on mailability and the lack of accent on more shorthand speed building and more typewriting speed building. He likes, too, the thought of taking as much time as necessary on whatever language-skill drills are necessary.

Typewriting teacher. This category of transcription teacher may not be as pleased with the do-it-as-it-is approach, but he endorses anything that will reduce hesitancy at the typewriter, which is what the "I understand what we are doing, sir" will achieve. He likes, too, the weekly rate chart so that there is some accent on typing efficiency.

Shorthand teacher. He will be disappointed that the design under discussion makes no provision for speed development, but he will assent willingly to frequent theory inventories, remedial drills, and direct drill in the management of the notebook. He will bless the frequent dictation previews, the learner-made word lists, and other devices that bring some assurance of quality notes and the transcription accuracy that they encourage.

Transcription students should learn to do transcription as it really is done, by means that simulate reality as closely as possible. There are many changes in methods of teaching transcription. There better be.

CHAPTER 10

Secretarial Procedures

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Business educators have recognized the need for a course that would bridge the gap between the school and the office—between theory and practice—since the early 1920's. Isolated skill subjects such as shorthand and typewriting did not equip the aspiring stenographer and secretary with skills and related knowledges necessary for successful employment. It was this concern that gave impetus to the establishment of courses in office procedures in the high school business education curriculum. Fifty years have passed, and this concern for bridging the gap continues to be a major challenge.

Courses in office procedures are identified as secretarial office practice, clerical office practice, or office practice in the high school curriculum. This chapter will be concerned primarily with the office practice course offered to prospective stenographic and secretarial students.

PRESENT STATUS

Empirically, the office training program was described as being a valuable course that "brings all of the work together to make of it a unit, and it affords a place to put in the minor details, which cannot very well be put in any of the other classes. . . . We can give her some ideas as to filing, the use of modern machines."[1]

Most business educators today agree that the purpose of this course is twofold: (1) the development of new skills and abilities and (2) the integration and reinforcement of skills previously learned. It is a means by which a student is initiated into business practices and procedures. A comparison of the purposes set forth in the 1920's and at present indicates that the primary purposes for the office procedures course are the same.

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[1] McAulen, Nellie M. "The Value of Any Office Training Course for Commercial Students." *The Balance Sheet* 6:10; March-April 1925. Cited by Moskovis, Michael. "The Unchanging World of Office Practice." *Journal of Business Education* 45:326; May 1970.

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Course content. The secretarial office practice course is a one-year vocational course for seniors. Typewriting and shorthand are the usual prerequisites for admission to the curriculum. An examination of secretarial practice textbooks reveals that the following instructional units are covered: career and occupational information; secretarial skills: dictation, transcription, and typewriting; communication skills: composing short memos and letters; telephoning and greeting visitors; mailing and writing telegrams; filing; transportation and shipping; copying and duplicating; budgeting and finance; office machines and processing data.

Organizational pattern. There are several methods of operation. The subject matter is usually presented through lectures, demonstrations, reports, various media, exhibits, and office visits. Skill development and reinforcement usually take place in a laboratory situation under one of two plans: the rotation or the battery plan.

The most widely used plan of organization is the rotation plan—a system in which students are moved from one kind of equipment and instructional material to another at a predetermined time. This is a more economical plan than the battery plan because fewer machines and instructional materials of a kind are needed; yet, all are in use constantly throughout the course. Under the rotation plan, instruction is given on an individual basis thereby allowing greater flexibility in meeting the needs of the students.

The battery plan is one in which all students participate in the same activity at the same time. All the students use identical instructional materials and equipment. Instruction, therefore, is given on a group basis rather than on an individual basis.

MAJOR DEVELOPMENTS AFFECTING SECRETARIAL OFFICE PRACTICE

Several forces in the last decade have contributed to the urgent call for the reassessment of the high school secretarial practice program. Attention is focused on four of them, as the implications of these forces cannot be overlooked by secretarial practice teachers.

Technology. The business world about us has changed, and the prospect for further change is imminent. Office work has undergone a revolution. Spiraling costs, increased business activities, and a shortage of qualified secretaries have forced the businessman to turn to office machines and systems that will alleviate his problems. The result has been that the nature of work performed by secretaries and stenographers has steadily been changing.

Federal legislation. The Vocational Act of 1963, the 1968 Amendments, and other federally funded programs have provided the thrust needed to open doors for the enrichment of existing office-occupation programs and the development of new ones. Through federal legislation, Congress has mandated that no one is to be excluded from participation in vocational programs receiving financial assistance. It is to be extended to all who want, need, and can profit from it.

The public high school today. Enrollment figures for public high schools have increased tremendously. Paralleling this growth has been the expansion of high school curriculums to provide opportunities for the development of each individual's potential. Enrollments in science, mathematics, and foreign languages—the college preparatory courses—are bulging. Comparatively, enrollment increases in the vocational business subjects have been modest. Surveys seem to indicate that more and more high school students are planning to further their education in college. It appears that the well-qualified students are not selecting office careers as their first choice. The decision to pursue an office career is made after his first choice appears "too difficult to attain." Presumably, his vocational business education training would then be deferred to the postsecondary level.

A significant number of students who are attracted to the program appear to be those whose scholastic aptitudes and achievements are limited. Such students need much preparation if they are to achieve success in their office career choice.

Community colleges. The two-year college is a phenomenon of the twentieth century. Never before has the concept of inexpensive higher education for anyone wanting it been so boldly advanced. Thus, many community colleges have sprung up in the last decade, and the number will continue to grow. Programs provide for students to transfer to four-year colleges as well as terminal education for students desiring vocational and technical training. It is anticipated that the greatest expansion in vocational business education will occur at these postsecondary institutions.

IDENTIFYING OFFICE ACTIVITIES PERFORMED BY STENOGRAPHERS AND SECRETARIES

Bridging the gap between the high school and the office requires that teachers of secretarial office practice keep in tune with current practices in the modern business office. Which knowledge and which skill units should be given emphasis in the classroom? Perhaps the question of *relevant* instruction, of *realistic* objectives, can best be answered by identifying the tasks performed by stenographers and secretaries.

An occupational study of selected stenographers and secretaries in Honolulu, Hawaii, was conducted in 1969 in an attempt to identify clusters of tasks performed by this group. The Perkins, Byrd, and Roley study was used as a model.[2]

The data is limited to 36 respondents, a 100 percent return, from a limited number of business firms and government agencies selected for the study. No claim is made that these choices represent the total business spectrum, but they are believed to be representative of a wide variety of types of businesses. The question of who would be involved was partially determined by the advanced shorthand class (three-fourths of the students enrolled in this class were also enrolled in the office practice class) at Waipahu High School. A list was developed on the basis of the class's interest in particular areas; others were added after an investigation of the kinds of industries and services listed in the yellow pages of the Hawaiian Telephone Directory.

The Honolulu study involved a very small number as compared with the model study. Nonetheless, the results were remarkably similar. This would seemingly indicate that there exists a common core of tasks performed by stenographers and secretaries, whether they be employed in the state of Washington or in Hawaii, over 2,000 miles away.

The findings of this occupational study are presented here as they provide insight into office activities. Only those tasks performed by 40 percent or more of the respondents are listed.[3]

TYPEWRITING TASKS

	Percent
Erase carbon copies	100
Erase original copies	100
Type business letters	97
Type addresses on envelopes and/or cards	97
Type carbon copies	97
Type memorandums	94
Type fill-ins on duplicated letters or bulletins	89
Proofread typewritten copy	89
Type manuscripts and/or reports	86
Type final copy from rough-draft copy	86
Type labels individually	86
Type cards (index cards, file cards, etc.)	86
Type and/or rule tabular material (tables, columns, etc.)	81
Type minutes or reports of meetings	81
Type copy from unarranged copy	78
Make corrections with Tip Ok, Ko-rec-type, etc.	78

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[2] Perkins, Edward A.; Byrd, F. Ross; and Roley, Dennis E. *Clusters of Tasks Associated with Performance of Major Types of Office Work.* Pullman: Washington State University, January 1968, pp. 1-236. Report to Office of Education, Bureau of Research, U.S. Department of Health, Education, and Welfare.

[3] Bumanglag, Elena M. *A Survey To Identify Clusters of Office Tasks Performed by Selected Secretaries in Honolulu Offices and Its Implications For Improving Business Education.* Master's thesis. Honolulu: University of Hawaii, 1969, pp. 10-42.

Type information on continuous roll tape (gummed or self-sealing back)	69
Type in outline form	67
Compose copy at the typewriter	67
Select or order other typewriting supplies and equipment (erasers, ribbons, etc.)	61
Type postal cards	56
Select or order proper typewriting paper and carbon paper	56
Type and correct stencils (mimeograph process)	53
Type on printed checks	50
Type on printed purchase orders	50
Type on printed purchase requisitions	50
Take dictation at the typewriter (type dictation as employer dictates)	47
Type on printed personnel forms	47
Type on printed receipts	47

OPERATION OF OFFICE MACHINES AND EQUIPMENT

Operate typewriter	100
Operate copying machine (e.g., Xerox, Thermofax, etc.)	86
Operate ten-key adding machine	75
Operate paper cutter	75
Operate paper punch	75
Operate rotary calculator (e.g., Monroe, Marchant, etc.)	42

DICTATION AND TRANSCRIBING TASKS

Transcribe (type) from shorthand outlines	78
Write shorthand from *one* dictator (Gregg, Pitman, etc.)	67
Take dictation over the telephone	67

MAILING TASKS

Mark, attach, or enclose materials for outgoing mail	94
Fold letters	94
Insert letters in envelopes	94
Seal envelopes (manually)	94
Address letters, packages, etc.	92
Read incoming mail	89
Open mail	86
Forward or distribute mail	86
Read outgoing mail to check up on information, etc.	86
Sort mail (for different persons)	81
Stamp envelopes (manually)	81
Take mail to mail room or mail box	81
Make notes on incoming mail which superior should see	72
Sort mail (in priority order)	72
Calculate postal rates (parcel post, bulk, etc.)	67
Attach pertinent correspondence to incoming mail for superior, to refresh his memory	64

Make up mailing list	64
Sign for registered mail	61
Wrap and tie packages	61
Check mailing list	58
Sign boss's mail (his signature)	56
Purchase postage	56
Have mail registered or certified	53
Pick up mail (leave desk to obtain)	50
Stamp incoming mail (as to date, time, etc.)	50
Revise mailing list	47

FILING TASKS

Get materials from files	94
Sort materials for filing	89
Make folders and folder titles for files (labels)	89
File materials by topic or subject	81
Handle classified or confidential files	81
Transfer records to inactive files	81
Handle cross references	78
File materials by name of person	72
Keep card indexes of various kinds	72
Revise files	72
Search for lost materials	67
Keep tickler or follow-up files of various kinds	64
File materials by date	61
Check out materials from files to employees	61
Control and manage filing system	61
Dispose of records	56
Select and/or order filing equipment and supplies	56
Keep clipping file (newspapers, magazine articles, etc.)	56
Follow up released materials	50
File materials by number	42

TELEPHONING AND COMMUNICATING TASKS

Answer telephone	100
Turn telephone calls over to another department	94
Place telephone calls (local)	92
Place telephone memoranda, messages, etc., where employer will see them	92
Screen employer's calls	83
Receive telegrams and/or cablegrams	81
Carry out written or oral orders or instructions of superiors	81
Compose correspondence	78
Place telephone calls (long distance)	72
Give oral directions to other office workers	72
Send telegrams and/or cablegrams	58
Compose written directions to other office workers	56

Arrange for and/or cancel newspaper or magazine advertising	50
Compose business reports of any kind	44

CLERICAL TASKS

Look up names and addresses	94
Change calendar daily	94
Look over notes and memos for the day	94
Keep desks equipped with office supplies (sharpened pencils, ink in pens, etc.)	89
Make notes for next day's work	89
Arrange papers or articles on your own and/or employer's desk	83
Assemble and staple duplicated materials	83
Cut materials	83
Send out notices of any type	81
Compare copy (one copy with another copy)	75
Dust employer's desk and keep employer's desk neat	72
Check on supplies (for reordering purposes)	72
Order supplies of various kinds for the office (from suppliers or central supply department)	69
Protect valuable and confidential materials	69
Get information from various departments needed for correspondence	67
Keep office manual or instruction book for employees	64
Gather data to fill out questionnaires	61
Distribute supplies	61
Anticipate needs of employer as to records, papers, etc., needed on trips, for interview, etc.	61
Compile periodic reports	61
Change dates on rubber stamps or time stamp machine daily	61
Post notices	58
Get quotations on supplies (from supplier)	56
Make out requisitions	56
Inspect material received for completeness, damages, etc.	56
Keep calendar marked with appointments for employer at his desk	56
Make preparations for meetings	53
Obtain trip reservations and/or tickets for employer	50
Renew newspaper and magazine subscriptions	50
Review unfinished business file	50
Check money orders, checks, etc., as to amounts, dates, signatures	47
Route shipments of materials (within office, between departments, etc.)	44
Place daily newspapers, magazines, etc., on employer's desk	44

Check personnel of committees (names, addresses, etc.)	44
Work with records of time and time cards	42
Take inventory	42

SECURING DATA

Use dictionary	100
Use telephone directory	97
Use *office* manuals	86
Use U.S. Zip Code Directory	78
Use *company* manuals	75
Use newspapers	69
Use secretarial handbook	67
Use city directory	64
Use magazines	61
Use maps	56
Use other reference books or manuals	50
Use U.S. Postal Manual (postage rates, types of mail, etc.)	47
Use timetables (R.R., airlines, etc.)	47

USING MATHEMATICS

Use addition	94
Use subtraction	92
Use multiplication	89
Use division	89
Add long columns of figures	86
Use decimals	83
Use fractions	72
Convert fractions to decimals	47
Compute percentage problems	47
Convert decimals to fractions	42

FINANCIAL AND RECORDKEEPING TASKS

Write receipts	53
Give checks to employer for signature	47
Deposit checks and/or cash in bank or cashier's office	42
Check bills and/or invoices (verify extensions, etc.)	42

EDITORIAL TASKS

Edit letters dictated by employer	56
Clip and collect magazine articles, newspapers, etc., of interest	50
Prepare material for printer or publisher	47
Gather data for reports	44

MEETING AND WORKING WITH PEOPLE

Plan work for one's self	89
Give information in response to verbal inquiries	89

Keep employer reminded of engagements, dates, things to do, etc.	81
Direct people to proper office or department	81
Hear complaints in office and over telephone	81
Decide on priority of work for self	78
Meet callers	78
Make introductions	78
Instruct new employees (work procedures, job orientation, etc.)	75
Make engagements and appointments for employer	72
Follow up on written notices for meetings by telephone	67
"Screen" visitors or people who want to see your employer	64
Coordinate with other personnel on various matters for employer	64
Make recommendations for improvements of office procedures, routines, etc.	64
Give directions for work to be done (as a co-worker or supervisor)	53
Round up people for meetings	53
Handle service calls on equipment	50
Confer with employer on policy procedures, etc.	50
Check up on unfinished work of other employees	44
Manage office	44
Make arrangements for guests and visitors (hotel, entertainment, etc.)	42

MISCELLANEOUS TASKS

Straighten up office	89
Dust	83
Collect money from office employees for various purposes	58
Run errands	58
Clean and oil typewriter	56
Prepare or obtain coffee or refreshments for employer or his guests	56
Advise employer of illnesses, deaths, births, weddings, etc., of *friends*	47
Acknowledge invitations	44
Send out invitations	42

COURSE CONTENT

Occupational surveys (such as the one described), community and student needs, school programming and facilities, and the teacher's skill and ingenuity are some of the determinants of the scope and depth of a secretarial office practice course. Recent research studies and current professional literature indicate, however, that there are certain instructional areas that are basic to the preparation of prospective stenographers and secretaries. These include (1) job orientation, (2) personal development, (3) human relations, (4) communication skills, (5) dictation and transcription, (6) typewriting, (7) records management, including filing, (8) office machines, and (9) office procedures and routines.

Job orientation. "I would like to be a secretary because it seems like an interesting job." "I want to be a secretary to work in an office nice surroundings." "I think I want to be a secretary, but I don't really know yet." These are some of the replies when students are asked why they selected a secretarial career. These answers clearly illustrate the importance of job orientation. What an office is, the role of a secretary, employment opportunities, salary ranges, and educational training are some of the topics to be investigated.

A concomitant of job orientation is job finding. It is imperative that students be taught the procedures in filling out an application blank and preparing for an interview. Studies have revealed that many persons were not hired because they failed their interview. The accent here should be on *why* the interview is so important. Time should also be spent on school selection as there may be a number of students in class contemplating further formal education. This also will afford the teacher the opportunity to instill the idea of continuing education either through the various evening programs offered by postsecondary institutions or informal avenues such as reading, attending seminars, and workshops. The popular notion that education stops upon graduation and/or the finding of a job must be countered with the reasons for the continuous need to upgrade one's skill and know-how.

Personal development. Desirable personal qualities and character traits are not inborn, neither can they be acquired suddenly. The acquisition of a personality befitting a secretary is a continuous, never-ending process, requiring constant self-assessment to ascertain strengths and weaknesses and a course of action to refine and correct the traits and qualities one possesses. Educational consultants in business have stated that a person with average technical skills could get by successfully if that same individual possessed personal attributes of the highest order. Yet, teachers seem to convey the idea that this is an area of minor significance. Much of what is covered in personal development is presented at the outset of the course, and very little else is covered thereafter. The importance of personal development in getting and holding a job cannot be overestimated.

Human relations. Unfortunately this is a topic lectured about, read about, and then student's knowledge is tested in terms of "Explain what cooperation is." This seems at odds with what surveys have revealed: High on the list of reasons for job dismissal was not lack of skills, but the inability to get along with others. At best, human relations cannot be taught once-over-lightly; it needs to receive more emphasis throughout the course than it presently does. Desirable traits of human relations can only be developed in an atmosphere that promotes such ideals of cooperativeness, tact, positive attitude, loyalty, and consideration for others. The teacher becomes the exemplar.

Robert F. Mager states that the teacher must exhibit those behaviors that he wants his students to learn.[4] As a preface to the teaching of human relations, it becomes necessary for the teacher to look at himself and to reappraise his teaching philosophy. His classroom behavior must be scrutinized from time to time. Also, as the student population becomes more and more heterogeneous, it becomes emphatically necessary that a genuine effort be made by the teacher to know each of his students. Only then would it be possible to eliminate some of the barriers to learning.

Communication skills. The study cited earlier supports the need to include principles and techniques of written and oral communication in the secretarial practice course. Tasks involving communication skills performed by 50 percent or more of the respondents include composing communications such as letters and memorandums, transcribing and editing dictated material, and carrying out oral activities such as answering and placing telephone calls, giving directions and information, and greeting visitors. Whatever is to be communicated to another person, be it by letter, by phone, or in person, must be said accurately, and more important, understandably. Otherwise, communication will not take place.

Attention should also be given to refining the student's ability to listen. Researchers have found that only 30 percent of what is heard is absorbed by the listener. On the other hand, data from the occupational studies indicate that listening is an important secretarial function.

Dictation and transcription. This unit on taking dictation should encompass not only the dictation process but also dictation readiness, predictation, and postdictation responsibilities. Materials to be dictated should be selected with care, and the method of dictation should be realistic. This means true office-style dictation: no stopwatch to pace the rate at which the material is to be uttered.

At the root of most transcription woes are grammatical errors. It seems ironical since English is a required subject for all students in grades one through twelve. Nonetheless, it remains a problem that one cannot ignore. This clearly points out a need to ascertain each student's readiness for transcription. Provisions must be built into the transcription unit for each student having difficulty to totally involve himself in correcting his deficiency. Transcription learning activities should also include pretranscription and posttranscription procedures.

What does the secretary do when dictation or transcription is interrupted by the ringing of a telephone? "Do I leave, or do I sit and wait patiently for him?" "Can't you see I'm trying to finish this letter?" These may be some of the questions racing through her head, and it may prove to be an embarrassing, awkward, or a frustrating situation, especially for a novice. Interruptions of this nature should be built in during dictation and transcription sessions to allow the students to react to situations that will confront them on the job. How one copes with interruptions is a relevant part of instruction. Herein are the ideal situations to change negative attitudes and behaviors of the students.

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[4] Mager, Robert F. *Developing Attitude Toward Learning.* Palo Alto, Calif.: Fearon Publishers, 1968, p. 63.

Typewriting. The occupational study indicates that the typewriting tasks performed by stenographers and secretaries are essentially the problem areas introduced in a beginning typewriting course. It is quite evident, then, that in this unit of study a major portion of time and effort must be devoted to the reinforcement and refinement of previous typewriting knowledges and skills. Those typewriting tasks listed below should be given top billing and thoroughly taught. Learning activities should be directed toward the achievement of acceptable vocational competency. It should be noted that only the last three items listed are not presented in the beginning typewriting course.

Making corrections/proofreading
Business letters/memorandums
Carbon copies
Fill-in letters
Envelopes
Manuscripts/reports
Minutes/outlines
Labels/cards
Retyping drafts/unarranged copy
Tabular materials
Composition of copy
Checks
Business forms: purchase order
    purchase requisition
Stencil cutting
Selecting/ordering supplies and equipment

Records management including filing. The time allotted to filing limits the content area for this unit. The occupational study, however, seemingly indicates that certain activities must be emphasized.

The filing tasks performed by 60 percent or more of the respondents included obtaining materials from files, sorting materials for files, typing folder captions, filing materials, searching for materials, checking out materials, and keeping card indexes. It would appear from the nature of these activities performed that filing techniques such as coding, rapid sorting, rapid locating, and removing and filing records should be stressed.

Alphabetic as well as numeric filing should be taught. Filing practice should not only be the processing of letters but also cards. The introduction of electronic data processing systems has resulted in the increased use of numeric filing and cards.

Other areas of instruction include the handling of confidential files and cross references, the keeping of a tickler or follow-up files, the transferring of records to inactive files, control and managing of systems, and the disposal of records.

Office machines. Research reports seem to concur that besides the typewriter, the machines most commonly found in offices today are the ten-key adding machine, copying machine, rotary calculator, and stencil duplicator. It is anticipated that rotary calculators will be replaced by electronic calculators within the next few years.

Many new machines will be coming out of the assembly line rapidly and introduced into the office. No school can possibly afford to equip the secretarial practice class with all of these machines. It becomes the responsibility of the teacher to apprise himself of the kinds of machines that are commonly used in the business community in order that purchases can be made with care. It should be remembered that the business machines unit of this course is but a part of the total program. Proficiency in the operation of most machines can be deferred to on-the-job training. An important aspect of this unit is to make the students aware of the various kinds of machines that might affect them in their own particular situations. This could be accomplished through field trips, classroom demonstrations by office machines representatives, and film presentations.

It is highly recommended that the basic computing machines be used as tools for learning business mathematics and office machine skills. The survey clearly indicated that these workers use basic mathematics such as addition, subtraction, multiplication, division, decimals, and fractions. Of importance, then, is the development of proficiency in the manipulation of these machines and the calculation of practical business problems.

It is suggested that purchase of electric typewriters take precedence over other office machines, and that the selectric be considered, as most of the electronic data processing machines have a keyboard that is similar in design and touch to the selectric typewriter.

The acquisition of a workable skill in the operation of a transcribing machine is desirable inasmuch as the number found in offices is increasing. The real value, however, is its use as a learning tool. Machine transcription forces the learner to listen attentively; to make instantaneous decisions on spelling, punctuation, and grammar; and to be fully cognizant of his responses.

Office procedures and routines. Organizing and planning the activities for the day is a function of an efficient secretary. An understanding of the importance of working with a system and the steps involved in deciding which job should be done first would prepare the potential secretary for this all-important task. Attention should be given to the teaching of time- and work-saving methods in typing office forms, in filing, in using office machines, and in completing clerical tasks.

ORGANIZATION OF COURSE

Essentially every teacher creates his own teaching procedure. He follows those he judges most suitable, selecting and adapting available methods or devising new ones after he has determined what the performance objectives of the course are.

These guidelines should be used as the bases for the selection of a plan of action: (1) identify the performance objectives, (2) identify the methods that would be appropriate in reaching these objectives, (3) select those that are most feasible for use in your particular situation.[5]

Methods that have been successfully employed by secretarial practice teachers include the battery plan, the rotation plan, the integrated plan, and the cooperative plan. No one method should be used exclusively, however, because it has been found that a combination of these plans would be necessary in working toward the goals of this course.

The *battery plan* might best be utilized at the outset to introduce the course; for planning objectives; for demonstrations; and for instructional units such as job orientation, job finding and school selection, and records management including filing. Where involvement of the entire class is necessary, this plan should be put into operation.

The *rotation plan* is recommended for use in the office machines unit. This allows the teacher to work with a student or a small group of students individually. This system necessitates careful advanced planning if it is to be workable, and it must be flexible enough to accommodate individual differences. Because many different activities are taking place simultaneously under this plan, instructional aids are a boon to the teacher. Detailed job instruction sheets and job assignment sheets, however, must be carefully drawn up if they are to do the job they are intended for.

The *integrated plan* attempts to simulate office conditions in the classroom by integrating previously learned skills and knowledges. Job-type learning experiences similar to those the students may encounter in the office are assigned. The emphasis is on the production of these jobs to meet office standards. This idea is captured in office practice sets that have been commercially made. Typing jobs and mimeographing jobs completed for the school and other community organizations require "integration." Oftentimes, though, the work is given to the better students for bonus as time is limited and the work produced must be of high quality.

The *cooperative plan* is a work-experience program. Students are assigned to jobs in the school or community, giving them an opportunity to put into practice what they have learned in a realistic setting. If work stations are available, a plan such as this may be undertaken during the second semester.

A well-coordinated plan is mandatory to insure meaningful activities for the student learner. It is essential that the secretarial practice teacher and the business employer or the "teacher employer" sit down together, discuss the program, and agree on the responsibilities of both parties.

An approach that is currently making headlines is the *simulation plan.* This is a program whereby the classroom assumes an office setting and work is centered around a "company." The objective of simulation is to acquaint the students with the basic procedures and routines of an organization and to expose them to the complexities of work interrelationships. This affords the students with a setting to refine previous learnings.

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[5] Mager, Robert F., and Beach, Kenneth M. *Developing Vocational Instruction.* Palo Alto, Calif.: Fearon Publishers, 1967, p. 58.

Since secretarial practice is a one-year course, the first semester might well be devoted to textbook content, learning new skills and knowledges, and reviewing previously learned skills and knowledges. A simulated project may be used during the second semester as a culminating experience.

In setting up a "company," consideration must be given to: (1) number of work stations, (2) time available in terms of weeks and class meetings, (3) kinds of work stations, (4) types of activities to be conducted, (5) number of students in class, (6) kinds of equipment and materials needed. Much preplanning, thought, and preparation are involved in the formulation of a simulated program; however, it may be one of the answers to providing realism in the secretarial practice course.

SPECIFIC TEACHING SUGGESTIONS

There are many ways of presenting information and transmitting skills. No one technique is the right one; no one technique could do the entire job. A variety is deemed necessary to create and maintain interest and to make the students more responsive to instruction. Some of the instructional methods discussed in this section are not new, but they are presented here because of their acceptance by many; some are just making the scene and have promise of producing desirable outcomes.

Lecture. One of the oldest and most direct methods of instruction is the lecture. Traditional though it may be, this teaching device can be effective if properly utilized. It need not be dull and uninteresting. To guarantee effectiveness, the material must be developed well, presented well, and not too lengthy. It can be further enhanced when combined with a demonstration or when visual aids are used as supplements. There are limitations, however, the major one being that this course is primarily a "doing" course. Lectures should be held down to a minimum.

Demonstration. A demonstration is as good as its planning. It is generally used by the teacher to illustrate a procedure to be followed, as in the filing of a letter, or to show the students the techniques to be used when transcribing from machine transcription. The job interview, telephone techniques, and greeting a caller are topics that lend well to other forms of demonstrations such as role-playing, skits, and dramatizations. The overhead projector, television, video tapes, and film strips are tools used by the "demonstrator." These can add color or reinforce spoken words if properly used.

Motion picture films. Used on occasion, motion picture films have a place in the classroom. Films have an intense appeal to students; therefore, they should be selected judiciously. The importance of previewing a film cannot be overly emphasized. Setting the stage prior to the viewing of a film alerts the students to what it is they should be looking for. By providing them with cues, the students' observation skills tend to improve. Likewise, a discussion following the film presentation summarizes the knowledge gained. This technique is applicable for the teaching of job skills, for introducing the unit on job preparation and orientation, and for presenting a concept.

A new idea in motion pictures are film loops. No sounds are produced. Film loops are very short in length—about five minutes—and may be in color or black and white. The beauty of film loops is that the film can be stopped at any point, slowed down, or rerun for quick viewing. A film can be rerun for individual, small-group, or class reviews.

Film loops can be prepared to demonstrate such techniques as chain-feeding envelopes, proper fingering on the ten-key adding machine, and centering vertically and horizontally. There are many possibilities for the use of film loops with only a home movie camera, lights, a roll of film, a projector, and the teacher's imagination and creativity.

Field trips. Tours and visits to business firms have instructional value especially in today's changing scene. A visit to a modern, up-to-date office is not a common occurrence for students. This visit can broaden their scope and open their eyes to many things they did not know about. Consider the impact this technique can have after a discussion of the office setting, new office machines, or acceptable office dress. Requisites for a successful trip include (1) careful, advanced planning, (2) class orientation on purposes of the trip, and (3) a follow-up evaluation session.

Guest speakers. Inviting someone from the business community to the classroom may be the extra ingredient needed to reinforce several ideas presented in class. For example, an employment interview, conducted by a personnel officer of "Company X," has a more dramatic effect than a mock interview between two students. The intent here is not to minimize the significance of role-playing; it is an important adjunct in developing an awareness of the processes involved in a job interview. However, seldom is a job seeker interviewed by an acquaintance.

A person who is in a position to contribute much to the class, but who unfortunately is often forgotten, is the business graduate who is currently employed. Relating his school and work experiences can add tremendously to the discussion on relevant learnings. Students, in general, are impressed with a graduate's comments.

Much of the effectiveness of this technique depends on advanced planning. The teacher should convey to the visiting speaker what it is that he is interested in teaching to his class. The speaker will then be better able to select information that would be most pertinent to that particular learning.

Job instruction sheets. A job instruction sheet is particularly valuable in those units where the students are engaged in many different learning activities. It is an aid to the teacher as it frees him from repetitive explanations and allows him to move about the class to work with any student needing his help. This also is a means of encouraging the students to proceed at their own pace within a given time.

A job sheet describes in detail the steps to be followed in performing the jobs for a particular machine or unit. Such things as daily assignments, time allocation, special reminders to the student, and test information are also included.

A folder called the *Standard Procedures Manual* (SPM) is charged out to a student at the beginning of the school year. In this folder he will organize the various job instruction sheets distributed to him throughout the year, thus introducing him to an office manual.

Conference method. A conference is defined as a meeting of two or more individuals to discuss or to consult with one another. A conference method, then, is a technique used by the teacher to discuss a problem with a student or students. Hopefully, there occurs an interchange of ideas and possible solutions. This strategy can possibly be the source from which more insight can be obtained about the students, and it may also be a subtle means of inculcating positive attitudes. The conference method is a time-consuming device as much of the conferences are scheduled during unstructured student and teacher time. Nevertheless, this is worth trying.

Systems approach. The typing of sales invoices by the students can be much more than acquiring proficiency in the typing of such a form. The vehicle whereby skill learning is extended to concept learning can be achieved through the systems approach. Teaching about the flow of work from the beginning, where the order is received, to its final disposition enables the students to view the various activities involved and the roles played in processing a single order. Through this approach students are able to develop conceptual skills, to better understand the contributions of each unit, and to recognize the needed actions to achieve an objective. The heart of the systems approach is the flow chart. This is a pictorial outline showing what jobs are to be done in proper sequence and by whom. The flow chart serves as a visual aid to clarify the system.

Flow charts. There are two general types of flow charts: the systems flow chart described in the preceding paragraph and the program flow chart. Each can be identifiable by its own set of standard symbols. By exposing the students to flow charts, the teacher is in effect introducing his students to terms and symbols associated with computers.

The program flow chart illustrates step by step how a job is to be done, a preplan for solving a problem. Consider its use in the teaching of mathematics with the calculator or the ten-key adding machine. Difficult problems are charted in a logical sequence. The very nature of the design assures understanding as decisions must be made by the student at different intervals. A flow chart of this type can also be used effectively for charting the various jobs to be completed for a unit of study.

Case studies approach. This is a teaching technique aimed at developing the student's ability to cope with on-the-job problems relating to human relations. The emphasis is placed on problem solving. The case studies approach involves the presentation of an "actual" case, an incident, or a situation. This is used as a basis for discussion. The students examine and analyze the facts of the case to define the central problem and to arrive at possible solutions. This experience should enable students to develop perception skills and to increase their awareness of the importance of attitudes.

Programmed learning materials. The use of programmed learning materials is one way of individualizing instruction. Common to all programmed learning materials is the "program" which consists of information followed by a series of statements or questions to which the student must react. Immediately after his response to an item, he is permitted to see the correct response, so that he knows at once if he was right. This approach offers to each student the opportunity to master something at his own rate. Slow learners can take more time to do a program without interfering with fellow classmates. Fast learners can complete a program in less time and move ahead into more difficult material. Students who need remedial work can use programmed materials independently of the rest of the class. Students who have been absent for a length of time or who have just entered the school can catch up in a short time with programmed materials. Programmed learning materials are found in textbook format, workbook format, looseleaf format, fanfold format, or as a set of cards.

A teacher who utilizes programmed learning materials will be able to reduce the time spent in presenting information and to spend more time for individual counselling within the class time. Also, the continuous reinforcement of student responses provided by this method relieves the teacher from some of the burdensome paper checking which, unfortunately, consumes so much time.

Programmed learning materials for filing, business mathematics, spelling, English grammar usage, and others are available commercially or may be developed by the teacher. Like any other teaching and learning tool, programmed learning will become monotonous if used alone for long periods. The materials will need to be augmented by other methods at the teacher's disposal to provide variety and sustained motivation. Too, great care and attention to details, particularly semantics, is vital if teacher-produced programmed materials are to be effective.

Learning packets. One of the purposes of a secretarial practice course is to review and to further develop previously acquired knowledges and skills. Inherent in this statement is the need to build upon the students background—to take them where they are. This necessitates the individualizing of instruction to meet the needs of the individual. It is needless for the accelerated student to repeat materials he has already mastered. Likewise, it is futile for one to do a job that is beyond his comprehension.

The key to individualizing instruction is a learning packet, a self-teaching device. At the beginning of a unit in which the students have had previous instruction, a pretest is administered by the teacher. This is to determine the level of proficiency each student has acquired. Students who do not meet the performance objectives are given a learning packet. The others would proceed with the regular assignment for the unit.

The learning packet includes these items: (1) the skill or concept to be learned, (2) the performance goals for the skill or concept, (3) the "how to learn" process activities, audiovisual equipment, textbooks, etc., (4) a self-posttest. The effectiveness of a learning packet depends on how well the packet has been prepared and whether the student uses it in the manner prescribed. Noteworthy are learning packets on English grammar, punctuation, tabulation, and manuscript typing.

Audiotutorial approach using the cassette. Within the past few years, cassettes have become very popular as a recording media because of their compactness, simplicity, and low cost. For the secretarial practice teacher, the cassette is a medium for providing individualized instruction to his students. A mere setting of the cassette onto a recorder and a push of a button will enable a student to listen to carefully prepared information on a particular topic. He is able to listen to an instructional unit as often as he wants until he comprehends the lesson.

The effectiveness of this tool in the classroom is dependent on the ingenuity of the teacher. Much experimentation will be needed to determine the conditions under which this approach would be most appropriate.

CONCLUSION

Providing the students with *relevant* learning experiences requires that the teacher be knowledgeable in the changes occurring in the business office. That the teacher must continuously scrutinize his teaching methodology is a well-established fact. However, the teacher can only appraise the work that is being carried on in the classroom in the light of what is happening in the offices that his students will possibly be working in.

Several avenues are open to the teacher. Summer office jobs and attendance at workshops, in-service institutes, and seminars are ways of being exposed to the latest business practices and current thought and innovation in his field of endeavor. Active membership in professional associations also provides the medium for the exchange of ideas.

There is no magic formula to insure teaching perfection. The teacher should experiment with new ideas, techniques, and other strategies. Follow-up surveys and business surveys can provide information on occupational training needs.

A number of authorities in office education have expressed the viewpoint that too much stress has been given by office practice teachers to manipulative skills. Preparation of workers for today and the future requires the shifting of emphasis from skills training to understanding of concepts such as systems, work flow, work simplification, office costs, new techniques and procedures.

The establishment of an advisory committee for office education will prove to be useful in providing information on planning and articulation. The committee should be comprised of a business executive, an office employee, a school administrator, and the office practice instructors at the secondary and postsecondary levels. Because of the increasing number of students wanting to go to college, the inclusion of the postsecondary office procedures instructor in the advisory committee is most desirable. Perhaps through this dialogue, an early-entry program for outstanding high school seniors would evolve.

Education for all who want and need it requires a new perspective for teachers. No longer can the teacher's efforts be concentrated only on the more capable students; he must find other means of helping the less able students who also yearn to experience success. There is evidence of a growing trend toward holding the schools accountable for student progress. The concern is on the end products the young adults capable of contributing to the betterment of the society in which they live. The answer, perhaps, lies in the individualization of learning. It becomes imperative for the teacher to find new avenues of learning to adopt and adapt instructional materials and learning systems that can best lead the student from where he is to where he is capable of being. The role of the teacher is shifting from that of the lecturer or the content disseminator to the director of learning or the manager of learning experiences.

CHAPTER 11

Clerical Procedures

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Methodology development in clerical procedures could fill volumes when an attempt is made to define the subject. The very term *clerical procedures* could require pages of definitions, since historically it has meant different things to different people.

This subject has confused business educators and administrators for many reasons, not only because of its many titles (Clerical Practice, Clerical Office Practice, Clerical Procedures, Clerical Office Practice I and II, Office Practice, or Office Procedures) and what they mean to different people but because of the variations in the kinds of equipment used, in the subject matter covered, in the needs it was intended to serve, and in its similarity to the content of the secretarial office practice and office machines courses.

While clerical procedures courses were slow in getting started, they have generally been accepted in high schools across the nation. Nevertheless, despite the extraordinary demand by business and industry for this kind of training, such programs are still outnumbered by other kinds of course offerings.

In recent years the type of student in the high school has changed. New developments in science and technology, with their specific applications to business and personal life, are occurring with such rapidity that all people are faced with the necessity of adapting and adjusting to constantly changing times.

School enrollment patterns have changed because students are realizing the need for more education. The kind of student who dropped out of high school in the sixties is now increasingly staying on until graduation before entering the job market; meanwhile, a greater number of students, interested in specialization, are going on into higher education before they embark on a career.

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Changes in technology to date have stimulated considerable growth in the clerical occupations, and this sector of the job market is expected to grow continuously in the years ahead. In light of these various changes, the clerical procedures program and its associated offerings should be operating in all high schools so as to provide all students with specific job skills and background information for both entry and advancement in business employment.

The role of office practice instruction has been and is to prepare the student to meet the general qualifications for office jobs. This idea was prevalent in the fifties and did not change to any great extent in the sixties.

As technology and methods change in the secondary schools of the nation, a more humanistic approach to education is evolving, and the individual student is beginning to determine his goals and the methods of attaining them. Therefore, the future of clerical procedures will be strengthened by those practices that point up the relevance of this course to various career objectives and which accommodate a variety of learning styles.

The personal goals of the students and the needs of the community for trained office workers will always be the initial factors to be considered in developing courses in our business education departments. To meet the requirements of students in the seventies, it should be realized that the dominant factors to be considered are what has gone before in the clerical field, what is going on now and what we may look forward to for the future.

In the late sixties, courses of study in clerical procedures still echoed some of the objectives established 20 or 30 years before. Today, however, more stress seems to be placed upon business ethics, office procedures and routines, automation in the office, and office communication systems. The following excerpts from state guides will illustrate this emphasis:

> The clerical practice course is a laboratory situation in which students are trained to coordinate previously acquired skills to business procedures. Personal traits and business ethics necessary for success in business are stressed. The pupil becomes familiar with business forms, office procedures, office machines, and with the application of business arithmetic, English, filing, and typewriting to business operations.[1]

> Clerical office practice is designed to help students develop understandings, knowledge, skills, and attitudes that will enable them to enter and succeed in business office positions involving such tasks as sorting, checking, typewriting, collating, duplicating, computing, filing, operating, and other clerical activities related to selling, buying, and financing. This course prepares students to produce services for business and to be responsible, loyal, dependable, and industrious.[2]

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[1] Boynton, Paul M. "Clerical Practice I and II." *Connecticut Business Education Handbook.* Bulletin No. 43. Hartford: Connecticut State Department of Education, September 1966. p. 51.

[2] Christian, Floyd T. "Clerical Office Practice." *A Guide To Business Education in Florida Schools.* Bulletin 72. Tallahassee: Florida State Department of Education, 1967. p. 72.

The courses described were recommended for both the eleventh and twelfth grades, but primarily for the twelfth.

With the demand for trained clerical workers rising in business and industry, how does the school curriculum actually prepare such individuals in one year to be competent in all these areas?

THE TEACHER OF CLERICAL PROCEDURES

This individual should be a quality teacher, with the same qualifications as those of the quality teacher in any subject, whether English or office procedures. "Every class hour should be carefully planned in advance; plans should be flexible so as to enable the teacher to make whatever deviations are deemed necessary during the class hour; each class hour should be reviewed for its strengths and weaknesses so as to determine whether the objectives have been followed and the goals met."[3] The clerical procedures teacher should show a genuine enthusiasm in the classroom—enthusiasm that results from proper training, from a professional attitude, and from the wish to instill in the student a desire to learn and a willingness to strive toward achieving the greatest possible success.

The successful teacher of clerical procedures should understand the principles of adolescent psychology and educational psychology, since many of these principles are involved in teaching the skills and knowledges required in this course. Moreover, to achieve mastery in the methodology and content of his subject areas, the clerical teacher should keep himself informed of present-day techniques and technological advances; he should stay up to date in his reading of current literature on the subject; he should participate in in-service courses, workshops, and organization meetings; and he should continually experiment in his own classroom.

The courses known as clerical office practice, office practice, or office machines continue to cross many discipline lines; therefore, a teacher of these subjects must be versatile in his preparation. He must be a qualified typewriting teacher first, and he must possess a knowledge of bookkeeping, business mathematics, business English, and office machines. He should have had experience in business prior to teaching business education. Only then are our clerical students likely to be fully prepared for office jobs as they actually exist.

THE STUDENT OF CLERICAL PROCEDURES

Students in this day and age are becoming more aware of their rights, and they are seeking greater involvement in deciding what should be accomplished educationally than their counterparts in the forties, fifties, or sixties. Teachers of clerical procedures courses must be ready and willing to provide course offerings and course content in tune with the students' needs.

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[3] Campbell, Lois J., and Kronenwetter, Evelyn F. *Typewriting Curriculum and Methodology in the Senior High School.* Thirty-Eighth Yearbook, Eastern Business Teachers Association. Somerville, N.J.: Somerset Press, 1965. Chapter 10, p. 132.

Students need to be informed of career opportunities available to them through their participation in clerical programs, the attitudes expected of them in the business world, and the standards expected whether jobs are plentiful or not. Students should be prepared for job entrance, not only at the twelfth grade level but at the tenth and eleventh as well.

Students from all backgrounds should be encouraged to enroll in clerical programs: the average, the advanced, the college preparatory, the low-ability student, and the student with special needs. Students who elect clerical programs often do so because of poor grades in English, shorthand, and mathematics. Some, however, have an earnest desire to become clerk-typists upon graduation from high school.

THE HIGH SCHOOL CURRICULUM IN CLERICAL PROCEDURES

The basic objective of clerical courses over the years has been job entrance following high school graduation. Advancement on the job has been left to the employers, who have seen the need to develop and offer a wide range of in-service training programs themselves.

The nature of the school population has a significant effect on the kind of clerical program offered by the business education department of each school. Schools with less than 1,000 students and an academically inclined student body tend to offer a course in clerical office procedures in the twelfth grade that combines fundamentals of arithmetic and English with personality and business ethics, clerical office procedures, filing, employment preparation, and office machines. This course may be integrated with other business education subjects and usually requires completion of a first-year typewriting course.

Other schools of a similar size but with more vocationally oriented students may provide a clerical office procedures course in the eleventh grade, with a passing grade in first-year typewriting as a prerequisite. This course incorporates fundamentals of English and arithmetic and teaches clerical procedures using some machines as well as some manual procedures. Students in this course subsequently take a second year of clerical office procedures in the twelfth grade and develop vocational competence in using a variety of business machines.

Larger high schools with enrollments of 1,000 to 2,000 students may offer a complete clerical program beginning in the tenth grade and continuing through to the twelfth. Prerequisites for entrance to this sequential program usually are a passing grade in first-year typewriting in grade 10 and a combination of clerical office procedures, second-year typewriting, and other electives (such as bookkeeping, data processing, business organization, business law, or consumer economics) in grade 11. In grade 12, the student continues with second-year clerical office procedures, a third year of typewriting (if it is offered), and office machines, in addition to an elective.

Course content for subjects recommended for the larger high schools might include the following:

Typewriting, tenth grade:	Keyboard techniques, speed and accuracy development, letters (one style), simple manuscripts, tabulations, envelope addressing, minimal preparation of business forms, carbons, and erasing.
Typewriting, eleventh grade:	Refinement of keyboard and techniques, two-page letters, advanced tabulations, rough drafts, business forms and papers, composition at the typewriter, proofreading and editing.
Typewriting, twelfth grade:	Business application of typewriting, general correspondence, business papers including carbon sets and legal papers, typewriting shortcuts, mailing lists and file cards, proofreading and editing.
Clerical Office Procedures, eleventh grade:	Alphabetical filing rules and use, handwritten business papers involving a variety of business concerns, business forms and papers providing the fundamentals of arithmetic, and business English, in addition to typing practice.
Clerical Office Procedures, twelfth grade:	Subject, geographic, and numeric filing rules and systems; typing practice set involving business forms—invoices, statements, filing, business letters, fill-ins, legal papers, and carbon sets; in addition to clerical payroll procedures.

Placement of students who complete this sequential program is generally successful for all concerned. It also provides more than one program to follow in case a student changes his career objective.

The kinds of programs just illustrated are presently in operation in many high schools throughout the country, but one area omitted from state handbooks and guidelines is programs for the large percentage of students who, for one reason or another, make up the 40 to 60 percent of today's school dropouts. These are the students with special needs: the disadvantaged, the low-ability student, and the student unable to determine his future plans before graduation. Over the years many of these students have enrolled in the clerical programs, and more time has been spent complaining about their presence than doing something for them. The need is growing each year to establish special programs within the confines of the business education departments for these students.

Through the use of vocational education funds, Quincy (Massachusetts) High School developed a program for students with special needs, combining individualized instruction, simulated model office, and some traditional types of instruction. Students enrolled in the program are those who have not attained the required passing grade in first-year typewriting or those who cannot compete educationally in regular clerical classes with the average high school student.

The program provides students with a complete sequence geared to their abilities throughout grades 11 and 12. In grade 11 the program provides them with a special clerical office procedures course (which is the mainstay of the total program), with recommendations that they take an elective in business principles or any other related elective. The grade 12 course continues with a second year of clerical office procedures and office machines (developed principally for this student). The content in the special clerical office practice program is based on five occupational areas which these students would likely enter upon graduation: file clerk, clerk-typist, payroll clerk, general services clerk, and machines operator.

Each class has a maximum enrollment of 20 students, divided into five groups of four students, each representing the five occupations. Students in the junior course perform the tasks of each occupation at the junior level of the position. Students in the senior course continue with the same positions at the senior level of the position. Each student is provided with a complete description of the occupation, the objectives of each job, and the performance goals he must reach to complete the total assignment. Job sheets have been developed based upon actual job routines established through a survey of the business community and through a survey of students who were working part time in the business community.

The program is housed in a separate room with a combination classroom and model office setup. Plans are in progress to place students within the school for on-the-job training under the supervision of school personnel, following the completion of each occupational assignment. Ultimately the student is to be placed on cooperative office work assignments in the business community. Since this will be the initial step into individualized instruction in business education for this school, time and materials will be required in large amounts to put the entire program into full operation.

Other schools have begun similar programs (such as model office instruction integrated into office procedures or machines classes for the last two quarters of the senior year) with considerable success and interest.

Simulation is on the road in Utah with the initiation of Mobile Office Education (MOE) in June, 1968. MOE is a unit composed of two 36-foot

> trailer houses which have been remodeled so they can be connected together and used as a single unit.
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> Utah has been concerned with the office occupations student; and many new techniques, especially simulation, have been tried in order to attain higher achievement for the beginning worker in the office. For the past three years, Utah teachers have met in workshops at Utah State University in cooperation with state department officials in an attempt to develop a curriculum which would include simulation.[4]

In 1967 a special project called NOELS (New Office Education Learning System) was initiated to "revamp business and office education programs of secondary schools and community colleges in the United States."[5] As education enters the seventies and looks forward to the eighties, consideration should be given to the impact the changes over the past 50 years have made in education. Each one should be taken on its individual merits, and consideration should be given to the development of a curriculum in the light of what has passed, what is here, and what is to come.

A clerical program for the future could easily begin in the ninth grade, or even sooner, with an exploratory course involving as many basic fundamentals of business education as possible. A tenth-grade schedule could include a first year of clerical office procedures (now scheduled for eleventh grade), placing handwriting and other clerical duties in the first half of the year and clerical typewriting activities in the second half when students are prepared to typewrite, use carbon, and erase. A second course in clerical office procedures (normally offered in grade 12) could be coordinated with second-year typewriting in the eleventh grade. The general content of this course would cover skill improvement, filing systems, office procedures, business ethics, and office machines. Twelfth grade would be open for the cooperative office education program, model office simulation, and other related courses required by students entering employment or higher education.

Materials and equipment are many and varied for the differing clerical programs and courses being initiated today. All available materials should be studied in the light of present programs or those to be developed. Class size, student needs and goals, community and business requirements—all are involved in the development of any course and should be considered before materials or equipment are purchased.

What are the essential factors that comprise an adequate clerical program? Research has revealed that the four major areas of clerical training are (1) typewriting, (2) filing, (3) office machines, and (4) clerical procedures; but the most important single skill is typewriting. Therefore, students should complete one year of typewriting before entering the clerical program. Then each succeeding year, they should continue with a typewriting course in addition to the clerical office procedures course. This ensures continued typewriting skill, improvement of accuracy and speed, and more efficient production of business forms and papers. With these courses completed sequentially, the student will become a competent office worker.

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[4] Hanson, Garth A., and Stocker, H. Robert. "Mobile Simulation in Office Education." *Business Education Forum* 23:17; October 1968.

[5] Lanham, Frank. "A New Office Education Learning System." *Delta Pi Epsilon Journal* 10:11; November 1967.

THE EQUIPMENT AND THE CLERICAL OFFICE PROCEDURES ROOM

Depending upon the type of course to be offered, a regular typewriting room (with a combination of manual and electric machines for the first year) may satisfy the requirements for the nonmachine office procedures course. For those offering machines within the clerical procedures course, a large room with a variety of business and office machines and equipment plus typewriters is recommended. The course offering a model office simulation or preparing students for cooperative office training will require either the present machines room or space where both an office setup and regular classroom accommodations are available.

The type of furniture, partitions, and general physical setup may differ according to the type of course one wishes to place in a specific room. Most high schools have typewriting rooms in which non-office machine programs may be assigned as well as office machine laboratories that may be reconstructed for special programs. Whatever the choice of furniture, machines, or typewriters, they should relate closely to what students will use when they enter employment.

METHODOLOGY AND TECHNIQUES IN CLERICAL PROCEDURES

Today, with modern methods of instruction and equipment available, many ancillary materials are available to improve the clerical procedures course: tapes, tape recorders, opaque projectors, overhead projectors, and transparencies. Materials of this kind not only provide more information to the student, but they also generate greater interest. Textbooks in clerical office procedures are many, in addition to the numerous learning materials being developed by publishers for all ability levels. Again, it should be stressed that only teachers can ascertain exactly the types of materials and equipment they will need for the operation of their particular course. A textbook used in one school may be out of the question in another; a set of workbook materials or learning guides for one may be too basic for the ability level of the other. So selection and preparation of materials for these courses should be at the discretion of the teacher and the department chairman.

When clerical workers enter business, they are often faced with machines they never saw or even discussed in their classes. To keep abreast of the situation in the community, business educators must continue to survey employers to determine what kinds of equipment they are using and are planning to acquire. Of course, it is only too well known that budgets play the largest part in what a school has or doesn't have, but ingenuity, imagination, and hard work also serve an important part in any course development.

Motivation in clerical office procedures is largely dependent on the enthusiasm of the teacher, but awards or certificates of merit may also be used. Local equipment dealers and book publishers offer such items in such subject areas as filing and office machines, but inventive teachers can produce their own. Certificates and awards have substantial value in informing the prospective employer of the student's performance and his level of skill, particularly in the area of typewriting and office machines.

Through a variety of teacher-devised techniques, students will learn to assume responsibility for the good appearance of the room, the replacement of supplies and materials, and the general orderliness of their work stations. In each class, the student acting as clerk or office manager has sufficient authority to demand that each student leave his desk in proper order and that all share in the responsibility for the neat appearance of the room. With the use of model office simulations, such assignments may be enjoyed and looked forward to with enthusiasm by students.

Developing appropriate standards of evaluation for work completed in a model office simulation, individualized class, or other nontraditional setup can be difficult, but as long as the present system of grading continues in our public schools, teachers will have to work within this system. A pass/fail method of evaluation could more easily be developed in these classes as a sign of changes to come. The primary purpose of the pass/fail method is self-evaluation for both students and teachers.

Educational policies, procedures, planning, and methods seem to be changing every day, and teachers, department administrators, and educational personnel seem to be caught in the ever-present turmoil of how to interpret these changes consistent with our present programs and programs of the future. At the onset of the computer age, the common claim was that the mechanical monster would drastically reduce clerical costs, but during the past 10 years staffs have grown, paperwork has overflowed in some areas, and the services of clerical workers today are the most needed of all occupational areas. "It is tempting to presume that the skills and understandings which we have traditionally taught in our clerical courses are so basic that there needs to be little or no adjustment as our students go into today's offices. This is tempting, but it is not true."[6]

Many business educators have done little to change the contour of their clerical programs. However, to provide appropriate learning experiences for all students in accordance with their goals and with the needs of employers, certain basic elements should be provided over and above what now exists.

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[6] Wood, Merle W. "New Skills For Tomorrow's Office Worker." *Business Education Forum* 25:8; February 1971.

> Our students need to know the basic data processing cycle: (1) origination of data, (2) input, (3) processing, (4) output, and (5) use of output.
>
> They need to know the types and functions of standard machines in the automated family. They need to know the jargon of automation. Essentially then, they need some sort of introduction to the automated data processing systems. This can be accomplished through a separate course, a separate unit of instruction within an existing course, or as content fused and integrated into an existing course.
>
> Our students still need the old familiarization which we can still defend as we rotate them through the various types of equipment in our machines laboratory. But they need more. They need a high degree of skill in the operation of those office machines which they individually are likely to use in preparing input data for an automated system.[7]

Students will have to be more familiar with number-handling skills because of the increasing use by automated data processing systems. Greater importance is being attached to penmanship as original data is recorded by handwriting. Students must be more familiar with numeric typing than ever before, and they must be skilled in handling the business papers that are swamping the offices of the nation daily.

Communication skills must be interwoven throughout all business education courses but specifically in the clerical areas where the majority of our students are involved. Every business education department should have (or be considering) a tenth- or eleventh-grade course in business English, taught by a qualified business education teacher. Clerical students should have an understanding of human relations today because of the ever-mounting pressures that arise in a machine-dominated world.

Clerical workers should be thoroughly familiar with techniques of preparing masters for stencil, liquid-process, and offset duplicators. Instruction in the operation of duplicating machines is desirable, but today's businesses are more involved in the use of sophisticated copy machines that produce copies of anything in a matter of seconds.

More and more businesses today are turning to in-house printing methods of a professional quality because of the major advances in the offset process. Therefore, students should be familiar with this process, one that can be accomplished at little expense compared to a few years ago.

Dictating-transcribing functions are improving, and those students who have the capacity and interest should become familiar with the methods of taking dictation from the assortment of aids available (such as belts, discs, or tapes), as well as the variety of machines in use. Whenever possible, students should be knowledgeable in the use of the magnetic tape typewriter that produces hundreds of "original" sales-type letters in a matter of minutes.

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[7] *Ibid.*

> With the advent of cooperative office education and model office simulation, our clerical curriculum will increasingly become job-oriented rather than subject-centered. Not only is vocational legislation attempting to push us all in that direction, but the short- and long-range needs of the students themselves demand that we move in that direction.

The new curriculum for the clerical worker of tomorrow must prepare him for both entry-employment and advancement on the job. Provision must be made for the preparation of this same student for postsecondary education. The present economic situation has pointed out the many inadequacies of courses, past and present, so the new curriculum should provide the student with broader-based skills and a broader awareness of his own potential for growth so that he can intelligently plan a career. If he knows how to analyze data, how to solve problems, and how to make intelligent decisions, he can transfer these skills to different settings. This kind of know-how will permit him to adapt to new systems and procedures and to new kinds of jobs that do not as yet exist.

New methods in the scheduling of classes are under development. Whether variable, flexible, or modular in nature, the time allowances provided could provide much-needed laboratory time for the greater implementation and integration of clerical skills and concepts.

Individualized instruction, where students progress at their own pace, is fast becoming a part of the education scene and will soon involve such technical skills as typewriting, office machines, and specific job training areas where there is no need for students to move together as a group. There is much to be gained by individualizing, as each student develops skill at his own rate and proceeds through a series of job-training sequences that best suit his evolving interests and abilities. Penalties are involved for the student who moves at a slow pace, since he is unable to enter the job market and command top-job opportunities; the student who can master the work in a shorter period of time will achieve a higher level of skill and be in a position for the top spot. Individualization in classes closely relates to the employment merit system where those who are the top workers get promoted; those who can't, stay on the same job for years.

Many teachers have used an individualized approach for some time, with students using job sheets, rotating from machine to machine, helping one another in the classroom, and generally working at their own pace. Teachers in these classrooms were well aware of the students who could and the students who could not complete tasks accurately and efficiently.

Individualization of instruction is useful in many areas, but the business educator must be informed as to its organization, its concepts, the time required for preparation, the materials, space, equipment, and most important, the potential outcome for the student. Will this be another innovative method concocted by nonclassroom educators to improve the educational system for the seventies, or is there much more to it for education? Will it really improve the performance level of our students, or will it create another educational problem?

If it can be proven that individualization of instruction provides effective training for the students who need it, then the question must be asked: Are teachers qualified to follow through? Are teacher-training institutions preparing new teachers for these innovations? Are they offering in-service courses for those already in our high schools? Or must teachers learn strictly by doing (at a cost to both the teacher and the student)?

Educators at the postsecondary level are advocating that vocational competency be completed at this level, not within the secondary schools. Today many students in our high schools cannot wait for vocational competency beyond the twelfth grade. They need it even sooner than it has been provided up to now. Many cannot enter higher education either for financial or academic reasons, so our secondary schools should continue reaching for vocational competency, not only at the twelfth grade but at the tenth and eleventh as well.

Postsecondary schools do have more opportunities to provide specialized training for those who desire and can benefit from it. The postsecondary student usually wishes to advance into a better-paying position, whereas the high school vocational student may need immediate employment and may have to put off higher education and specialization until later. Business education at the secondary level has an obligation to provide for all students in its schools. The business educator in the small school complains about the lack of students in his programs because all go into college preparatory programs. The larger schools often have the same complaint, but both are likely failing to offer anything tangible to any great extent in business education for the college preparatory student. It should be remembered that college students are eventually going to run the businesses, industries, and government agencies. They, too, need skills, understandings, and knowledges for both business and personal use. Don't eliminate them—the business department needs them, and they need the business department.

The entire structure of today's educational system is in the throes of upheaval. Society has radically changed, and educators are now looking at their students in the light of their rights as individuals, not as just so many names who pass through the halls of our secondary schools and go on to college, employment, or nothing. Methods of teaching clerical procedures are changing too, not just for the sake of change, but to provide students with the best education possible so that they, too, may have many career choices available to them upon graduation from high school.

The clerical program offerings will suffer considerably if any attempts are made to standardize or to squelch the enthusiasm of teachers who experiment in the classroom. Instead, all must join together—teachers, students, and administrators—in being aware of what is going on so as to provide effective programs that will be the key to the future.

CHAPTER 12

Accounting

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It is significant that high schools started dropping the term "bookkeeping" in the 1960's and that the composition of topics in what was a somewhat rigid accounting curriculum showed signs of bending. Most significant of these signs was the trend to integrate data processing terminology into accounting texts and materials so as to keep pace with the needs of students who are products of a rapidly changing economy and environment.

A computerized society that demands that data be processed at fantastic speeds means that even more jobs will be available that require an understanding of accounting principles, as well as jobs that do not exist at the present time—jobs that probably have not yet been identified. Such a condition strongly indicates that both the methods and materials for teaching accounting in the 1970's will have to be constructed for maximum flexibility and that the curriculum will have to match the student with jobs that are, or will become, available. These educational needs can be met, however, only if accounting teachers are aware of the need for continuous updating of both materials and methodology through: (1) knowledge of jobs available as may be determined by local employment departments; (2) data compiled by vocational specialists in the state departments of education; (3) funds available for program improvement under the Vocational Education Act; (4) professional workshops, seminars, and panels; (5) current literature, including research studies.

THE STUDENT

Today's accounting teacher faces a classroom of students exposed to television and transistors from the day they were born. Communications about

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the real world have never been better. The vocabulary of the computer and IBM cards are quite common to many of them. As a result of this "instant" communication, most young people feel or think they recognize immediately whether a topic is important or, as they put it, "relevant." Whether this thinking is right or wrong, it has to be reckoned with by today's accounting teacher; he has to direct each student's acquaintanceship to create interest in the daily topic on a one-to-one basis.

To date, recognition of individual differences in abilities, aptitudes, and attitudes has been reflected essentially through a grading scale that ranges from *A* for the student who is both motivated and capable to *F* for the student who is least capable or least motivated. Fortunately, accounting is a type of course that segregates the problems of individual differences very early. It is a course in which one lesson builds on preceding lessons. Totally new subject areas are infrequently inserted. Consequently, the observant and interested teacher can quickly separate the more capable student who can progress at a greater rate of speed from the less capable student.

Traditionally, the more able students in accounting have received extra credit assignments, been allowed to do homework when they finish the class assignment, corrected other students' papers, or acted as tutors for the slower students. Meanwhile, the slower students had been forced to complete assignments without understanding the whys and hows, and as predictable, the first group earned A's on tests, the "forced-fed" failures earned F's, and the students in the middle floundered along and passed because someone had to be average.

For the less motivated, less capable student especially, trying to learn principles and procedures that require understanding of each step for carryover to the next lesson, this lockstep proves traumatic; for the more motivated, capable student, such a system often proves boring and discouraging and kills initiative. To offset these disadvantages of the typical accounting classroom where the teacher is *stage center* at all times, other methods have to be introduced some totally new and fresh; others, adaptations of existing methods.

CONTINUING PROGRESS EDUCATION

Continuous progress education is an individualized instruction system, a simple example of which is one where the faster students are permitted to work ahead with the aid of learning packages. These learning packages use pretesting and alternative activities for each lesson, with learning evaluated upon performance objectives. A student may take and pass a pretest that will allow him to skip the entire learning package. On the other hand, if a student completes the activities of the package and fails the posttest, he is required to recycle to similar material to insure that he has met the performance objectives. Since the student knows in advance what is expected of him, it is his responsibility to decide when he is adequately prepared to take the posttest.

A very important feature of learning packages is the built-in options provided for each kind of learning activity. A well-written package provides a variety of materials from which the student selects those he desires to pursue to achieve the performance objectives.

In evaluating such work, naturally more sophistication is possible in those schools that allow variable credit, that is, credit given only for the amount of work completed at a minimum level of achievement. To be more specific, if a student completes only 75 percent (or its letter equivalency) of the total number of packages with an 80 percent or better accuracy, his grade is 75 percent for the marking period. Or, as is done in at least one school, each course is divided into tenths, which makes it possible for a student to earn only four-tenths of a credit for an accounting course. Such a variable credit system dictates that no one shall receive a failing grade.

Under continuous progress education, early identification of the need to recycle to a basic principle (e.g., accounting equation of a debit and credit or control accounts and subsidiary ledgers) must be a part of the curriculum plan. If a student does not, for example, meet the performance-objectives, review work or alternative activities must be available in the teacher's resource file so that the student does not become discouraged from trying to reinforce and refine his learning to a point where he can continue with the next advanced package with reasonable assurance of completing it successfully.

USE OF CAPABLE STUDENTS AS ASSISTANTS

The use of capable students as assistants is another method for providing individual instruction. Alternatives are possible for use in almost any school. A simple technique of assigning the more capable students to work for *short* periods of time with students who have missed a lesson or who simply do not understand a concept is used by many teachers. A tutor system, where the tutor is an advanced student enrolled for credit as a tutor in a beginning class is much more effective. The advanced accounting student who has completed the beginning course enrolls in a credit course that might be called "Tutoring in Business Education." Each tutor is assigned to specific students to give them help, and a performance objective for each lesson is given the tutor and each of his assignees.

Students with whom the teacher is having communication problems are sometimes motivated by the help of another student. For example, for a student with a bilingual problem, it is helpful to have another student who speaks the second language to assist in the instruction.

One of the pitfalls of the tutor system is that it is quite tempting to use the tutors as teacher aides for paper correction and attendance only. If the system is not structured so that performance objectives are given to the students, the tutor may not be giving the kind of help that is needed. However, with wise use, a tutor system can be of major help to students in an accounting class.

Another form of utilizing student help is to organize the class into teams, providing for all levels of ability on each team. Teams compete on the basis of team accomplishment. Individuals within the team work as rapidly as possible to pass the performance tests. Assuming that the school has more than one period of accounting, an extreme of this system is organizing by classes and having each class measure the success of its accounting work with other classes in the department. One danger of such a team approach is that the more capable students are often held back. If they were to spend their time concentrating on their own accounting studies, they would probably progress much further and possibly become eligible for advanced placement in an accounting course at a local community college. On the other hand, perhaps the advantage gained by having more students succeed in accounting under this team approach outweighs this probable disadvantage.

VARIETY OF LEARNING MATERIALS

Another form of individualized instruction is the use of a variety of learning materials rather than relying only on text and workbooks. For example, instruction on cassette tapes with an accompanying filmstrip can replace written instruction. Closed-circuit television can be used to supplement instruction. (These TV tapes can be readily stored and made available to each person as he progresses through the course.)

Providing a variety of practice sets affords a type of business simulation whereby the student can select the kind of business recordkeeping he is interested in. In a rural community, for example, the student may select a farm practice set. In a more urban society, a student might want to do a service station practice set.

Practice sets are also a valuable way of recycling to reinforce a student's knowledge or skill in those areas in which he has indicated weaknesses. However, in order to use multiple practice sets in the same class, the teacher has to organize the materials carefully so that the level of the practice set is appropriate to the point of instruction at which the student is working.

In fact, total reliance on such business simulation could conceivably replace a text entirely, although this is not particularly advisable. Gradual progress through jobs in a simulated business could be tied together to teach all the elements of an accounting course, culminating in an audit of the business showing the complete cycle.

In spite of the possibilities just cited, however, the vast majority of classes continue the chapter-per-week system because it is easier and more secure, since all students hand in the same problem; it reduces to a neat package all assignments for the year; grading is simplified; and everyone has his assignment and knows what to do. For an instructor teaching accounting for the first time, this plan may be best. However, student needs should outweigh concern for complete classroom control. What must be done by accounting teachers themselves is to sponsor alternative methods of teaching accounting to meet the needs of individual students.

THE JOBS

Entry-level requirements for high school graduates seeking office employment show the need for segments of the accounting curriculum rather than a complete knowledge of accounting. (The need for legible, accurate work alone justifies the inclusion of accounting in an office occupations curriculum.)

Only certain recordkeeping functions are needed by a medical receptionist-secretary who keeps records of patients, performs certain daily cash and banking activities, and maintains certain records for an outside professional hired to do the actual accounting for the doctor or dentist. The same reasoning can be applied to any one of a number of other specialized business occupations that involve varying levels of recordkeeping and an understanding of accounting principles.

Business education clubs such as FBLA may take on a project to study entry-level position requirements (e.g., account clerks, cashiers, inventory clerks). Students on an individual or independent project might assist by interviewing CPA firms to see what related instruction would help students seeking clerical employment with such firms.

Seeking advice of the business community in planning instruction is nothing new; in fact, all programs under the Vocational Education Act must use advisory committees. Accounting instruction that closely relates to data processing problems touches on so many kinds of jobs that it is crucial for employers to become involved in curriculum planning. The results of such cooperative planning have in many instances changed emphasis from a full-scale, double-entry accounting system to a flexible curriculum that provides instruction that meets the requirements of a variety of jobs. Such planning has in many instances shown the need for cooperative education where students receive practical work experience in accounting entry-level jobs while they are still taking the course.

Incidentally, while focusing on jobs related to accounting, ranging from the position of account clerk to that of a Certified Public Accountant, the personal use of accounting instruction certainly should not be overlooked. Use of personal budgets, paying income taxes, computing rental income and expenses, interpreting payroll deductions all could be short units of instruction completed by all students who may or may not be ultimately pursuing an accounting career. After all students have completed the accounting cycle, students interested in the personal-use aspect may select those special units of instruction. Conceivably, these might be geared to a consumer education approach that could also touch on business law problems the students might face in later life. This implies that there may be overlapping units of instruction between the accounting, consumer economics, and/or business law courses.

Accounting courses have been traditionally geared to only accounting careers, but jobs today are available in a wide range of office occupations so that there are many possibilities for emphasis if the accounting curriculum is designed for maximum flexibility of choice. For example, it is obvious that the stenography student need not take the entire accounting course to succeed, but stenographers will do a much better job if they at least have a basic understanding of a simple accounting cycle, especially an understanding of the accounting vocabulary.

Secretarial and clerical jobs require many of the units of instruction included in the first quarter of accounting courses. The use of figures, types of records, and verifying entries are valid training for these types of positions. The second quarter brings more jobs into the sphere of accounting. Eliminating adjusting entries but covering a complete accounting cycle would allow training for many other types of positions. Accounts receivable clerks, accounts payable clerks, billing clerks, cashiers, and credit clerks are examples of new position possibilities for students completing a one-semester accounting course with other related instruction. The second semester of accounting provides basic training for a very wide range of general clerical positions short of a full-charge bookkeeper, and if such units as automated accounting, payroll procedures, and income tax accounting were included, students could be trained for a still further variety of jobs requiring a knowledge of accounting principles.

SECOND-YEAR ACCOUNTING IN HIGH SCHOOL

Second-year accounting in the high school could also be designed to serve students with different needs. Students planning to major in accounting may progress to work found in the college textbooks. Students planning for immediate employment could complete advanced units on bookkeeping machines, data processing as applied to accounting, and to the specialized work of such detailed jobs as a posting clerk or a stock clerk. Other students could pursue accounting as applied to a specific occupation; for example, agribusiness students could work exclusively on accounting problems in agriculture and business, including specific differences in law.

METHODOLOGY TO MEET PROBABLE FUTURE CHANGES

The 1970's will produce revitalized accounting courses that are fully articulated from high schools and community colleges to professional programs in colleges and universities. These courses will also provide for segmented teaching of accounting principles so that each student may choose just those portions of the course he needs in the career he is seeking to pursue.

The accounting instructor will not be a teacher in the sense of a teacher-to-class system of today. Acting more as an adviser, he will help students select units of instruction in a program approach based chiefly on the student's occupational or personal goal. Along with the selection of the instructional program sequence, he will help the student select the media best suited to his learning needs and abilities as well as to select suitable materials for recycling when learning has been temporarily blocked.

The accounting units of instruction will be presented in a career ladder with many levels of jobs. A student will select the emphasis of accounting instruction needed for his total occupational program. Maximum transfer between programs will be possible by selection of new segments to qualify the student for additional job possibilities.

Students will be able to continue their career program in accounting at the community college level after high school graduation. This may be a part-time program while using the accounting principles in a full-time clerical job, or it may be working part time while enrolled in a full-time program designed for transfer to a university, meanwhile taking advantage of the occupational skills learned in high school.

A complete range of materials, including textbooks with programmed learning, multimedia of all types to reinforce each lesson, and computer-assisted instruction will be at the disposal of the accounting adviser. The number of students per teacher may double. Greater use of teaching aides will free the accounting adviser to counsel students individually. Motivation and classroom behavior problems will be practically nonexistent, for each student, through his accounting adviser, will select his own learning modes.

Students will be given maximum chance through recycling to learn materials when tests are not passed successfully. Recycling will be accepted by students, for they will be aware of how the accounting instruction integrates with their career program. In a capsule statement: Accounting will emerge as a keystone of many occupational training programs.

CHAPTER 13

Data Processing

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The title of this Yearbook, "Changing Methods of Teaching Business Subjects," assumes that there are organized, tested, and documented methods used by teachers in the past which are now being changed or will be changed in the future. This is not necessarily true in the case of data processing. Because data processing is so new to the business curriculum, and because it has been in a constant state of change, very little has been written to establish a body of methodology. It is the purpose of this chapter, therefore, to describe some of the practices of data processing teachers and the methods they have used to teach in this diverse and continually changing subject matter area.

The field of data processing education is a product of evolution rather than a planned development with formal goals and objectives. It is the result of expediency in which industry was forced to take the lead and provide the necessary education and training. The subject matter was so new and strange to everyone that only the people who had created these new machines knew what knowledge and skills were necessary to make them work as desired.

THE DEVELOPMENT OF DATA PROCESSING EDUCATION

Data processing has been with us from the time man began keeping records of his exchange of goods and services with his fellowman. The difference between the past, present, and future in data processing is not so much *what* is done, but rather *how* it is accomplished. The same analogy can be made regarding data processing education.

Modern data processing has had a relatively short history beginning in the late 1800's with the development of punched-card equipment by Dr. Herman

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Hollerith for the U.S. Census Bureau. During these early years, data processing education was limited primarily to the training of operators who were to perform the tasks necessary to make the machines run.

With the development of *programmable* punched-card equipment in the late 1920's and early 1930's, manufacturers began conducting training sessions to teach techniques of plugboard wiring to their customers. Since the equipment vendor was primarily in the business of selling his product, not much consideration was given to the definition of educational objectives. The success or failure of this educational effort was measured largely by the ability of the people trained and, perhaps of greater significance, the satisfaction of his customer. This pattern has continued up to the present, with the exception that some manufacturers have recently separated education and training from the "package" and are charging a fee for this service.

The spread of punched-card data processing is well documented. Thousands of users purchased or leased a wide variety of combinations of punched-card equipment, ranging from the minimum system consisting of a keypunch, sorter, and accounting machine to the most elaborate ones which included devices such as electronic calculators, collators, reproducers, interpreters, verifiers, and many others.

The development of the electronic computer began in the late 1930's and continued through the early 1950's when it became a practical reality. The computer's utilization by the Census Bureau and a few colleges and universities for scientific research and mathematical study gave new direction to data processing education. Here was a device that could solve in seconds problems that previously would not have been attempted by conventional means. Little consideration, however, was given to the need for establishing programs for the training of large numbers of people to work with computers.

The IBM 650 computer, introduced in 1954, was the first computer designed to facilitate the processing of business data. It demonstrated that mass data files, characteristic of business data, could be processed easily and that alphabetic as well as numeric data could be handled by computers. The result was a surge of computer utilization by business and a corresponding shortage of people trained in all phases of computer utilization. This was a shortage which the manufacturers were unable to satisfy.

Consequently, during the 1960's a large number of business data processing education programs were started, both on the secondary and postsecondary levels. Their purpose was to train technicians and provide a source of supply to meet the need for data processing personnel. The early curriculum patterns that were developed have continued to serve as models for hundreds of new programs. The teachers for these programs have come from a variety of sources: a few from industry, more from colleges and universities, and the greatest number from the public schools. Business teachers and others interested in this new field gained their knowledge of data processing by attending manufacturers seminars, participating in government-sponsored institutes, and engaging in intensive home-study programs.

The record established by these pioneers is exceptional, and they are to be commended. It is fortunate that there are now a large number of knowlegeable people developing new programs, upgrading old programs, and keeping an eye on the future of data processing education.

TEACHING PUNCHED-CARD CONCEPTS

The current need for teaching punched-card concepts and control panel wiring has been a subject of concern to data processing educators. With the introduction of low-cost computers capable of performing most of the punched-card functions at a greater speed, it is questionable whether the need for additional people possessing this highly specialized training will continue. Before extensive training is offered, the needs of the local community should be assessed by consultation with an advisory committee and perhaps a survey of the job opportunities available. Where the decision to teach punched-card data processing has been made, two basic patterns have been followed: the problem-oriented approach and the intensive machine-training approach. Both approaches require that equipment be made available for use by the students.

The problem-oriented approach is most commonly used when one of the course objectives is to provide an orientation to unit-record data processing rather than a high degree of vocational competence.

During the beginning of the unit-record course, the teacher discusses each of the machines in nontechnical terms. The purpose is to enable the student to learn the characteristics and the basic functions of each machine and its relationship to the other machines. Flow-charting is introduced to help provide a graphic presentation of these relationships, to describe the flow of data through the machines, and to illustrate the need for adequate documentation of solutions to data processing problems.

Each student is given the description of a simple data processing problem to be solved using unit-record equipment. He plans his solution, using flow charts to describe the sequence of machines and processes that will be followed. Record layouts, printer design forms, and wiring diagrams are prepared and submitted to the teacher for approval. It may be desirable to have several problems that require the use of different combinations of machines in their solution. This should provide for more efficient utilization of equipment and eliminate waiting time for the student.

After each step is completed, the student in cooperation with the teacher determines whether the desired outcomes at that point have been met. After all steps are completed, the entire solution is tested, using test data usually prepared by the teacher. If the results are incorrect, the student must determine the cause of the errors and make the necessary corrections. Once the solution is successfully tested, the complete "package" is submitted for evaluation. The contents of the "package" may vary considerably, depending on the teacher's requirements. Usually it would include a problem narrative, input and output formats and descriptions, wiring diagrams, a systems flow chart, operator instructions, a sample of the test data, and a copy of the final output(s).

The intensive machine-training approach is intended to develop a high degree of vocational competence on each piece of unit-record equipment available for instructional use. An overview of the machines, their basic functions, and their interrelationship is presented first. Flow charts are discussed and used to show these relationships in a realistic applications setting.

Following the overview, in-depth instruction is given on each of the machines and its specific capabilities. A series of practice problems is used to reinforce the concepts and machine functions covered. For example, when learning the wiring for the collator, exercises would be provided to illustrate the functions of sequence checking, matching, merging, selecting, and various combinations of these functions. Once an understanding has been demonstrated, the student progresses to the next machine. This process is repeated until each machine has been learned.

TEACHING PROGRAMMING TECHNIQUES

If programming of business applications is to be taught in the business education department, it should be justified on the basis of its vocational objectives. It is highly unlikely that it can be justified for its personal-use value except as a tool for solving mathematical type problems. The business programmer is concerned with developing solutions to business data processing applications. The programs he writes are likely to be used over and over again on a regular, usually scheduled, basis—payroll and inventory, for example.

The mathematician, researcher, and scientist use the computer as a tool. Their problems require an immediate and quick solution. The programs they write may or may not be used again.

Computer programming is essentially problem solving, using the computer as the vehicle for implementing a properly defined solution. The key to this definition—and the key to success for a programmer—is in the words, "problem solving." A common practice in teaching computer programming is for the student to enroll in an introduction to data processing course just prior to or concurrently with the introduction to his first programming language. He stumbles into programming totally unprepared for the type of work he is about to undertake. He has little or no knowledge of problem-solving techniques unique to the computer programming activity. It would seem appropriate, therefore, that an effort be made to facilitate a smoother transition into the programming language courses. Whether this transition is made by including computer problem-solving activities in the introduction to data processing course or by establishing a separate course would depend on the overall objectives of the program. If the program is vocational, then the time spent in a separate course would be worthwhile; if not, the amount of computer problem-solving logic activity should be reduced and included as a unit in the introduction to data processing course.

There are benefits to be derived by including this type of work prior to teaching programming language. In addition to developing a more capable problem solver, it would be useful in identifying those students who have the creativeness, logical aptitude, initiative, and interest required for success as a programmer.

The following outline suggests some of the topics that might be covered in a programming logic, problem-solving unit or course. These topics would give the student an idea of some of the activities a programmer performs and should make it possible for him to decide whether or not he likes this kind of work before he has committed a great amount of time and effort. For the student who likes what he sees, it will eliminate many of the difficulties in solving logical problems at a time when he is struggling just to learn the programming language conventions.

I. Symbolic representation of programming logic
  a. Systems flow-charting
  b. Functional flow-charting
  c. Detail or logic flow-charting
  d. Flow-charting and program documentation
II. Problem-solving techniques using flow charts
  a. Input and output logic and techniques
  b. Looping concepts
  c. Indexing
  d. Subroutines
  e. Table logic and techniques
  f. Decision table logic
III. File processing
  a. File organization
  b. File updating logic
  c. File access methods
  d. Detection and prevention of file process errors.

The programming exercise approach to teaching programming consists of using a series of short problems, each of which is designed to present a particular programming concept, technique, and/or instruction. Each subsequent exercise would build on the previous one, gradually working into more complex problem situations. The teacher would introduce only those language elements necessary to solve successfully the exercise currently being developed. For example, in a symbolic assembler language course, a first problem might be to write a program to make a copy of a deck of cards which have been previously punched. Such an exercise teaches the use of input and output instructions, looping, and simple data description entries. The second problem might expand on the first by requiring a count of the number of cards read, an accumulation of certain data on the cards, and a summary card punched containing the accumulated amounts. This would introduce the students to the use of arithmetic instructions and the additional data description entries necessary for defining work areas. A third problem might introduce printed output and the instructions related to the printer. In each problem, the student would be required to submit a flow chart *prior* to coding the solution, as well as a modified flow chart reflecting the changes made in the process of debugging or correcting programming errors. Advantages to this approach are that each student can work at his own pace allowing the faster student to progress more quickly, and freeing the instructor to work with those students who need his attention.

The comprehensive problem approach to teaching programming begins with a presentation of an overview of the features of the particular programming language. The student is presented with the language elements, the language structure, coding system, hardware considerations, and the various syntax rules he will be using.

It should be noted here that the success of this approach is dependent upon the student's possessing the ability to understand the logic necessary for solving typical business applications problems. If the student has not had this training, it would be necessary to delay the presentation of the specific language considerations until sufficient skills in computer logic problem solving have been developed.

Following the overview of the language, the student is led through a carefully preplanned applications problem. The problem description is presented, discussed, and analyzed so that there is a clear understanding of the problem objectives, the inputs, outputs, and processing requirements. From this discussion, a logic flow chart for the solution of the problem is developed by the class under the guidance of the instructor. This flow chart serves as the guide for coding the solution. To give him the opportunity to learn the proper use of program coding forms, each student fills out his own coding sheets for the problem solution.

The first items coded are usually the input and output data descriptions. Then the coding of the individual instructions which will process the data are written. The instructor and the class work through the coding cooperatively, discussing each instruction and item of coding as it occurs. In this way, students learn the use of a specific instruction in relation to a specific need. The coded program is keypunched into cards creating a deck commonly known as the source program deck. A precompile listing of the cards is then made to identify keypunch and other detected errors which may have occurred. It is particularly desirable to have a prelist if the student keypunches his own program. Corrections are made in the source deck and with the necessary control cards added the program is compiled. These control cards should be provided by the instructor in order to avoid long explanations that are not necessary for beginning programming students.

After the program is compiled, the student receives his copy of the printed output from the computer. The content of this output will vary with the particular computer system. However, there will usually be a listing of the source program (source deck entries), a list of errors and their location in the program, and a listing of the machine language or object program.

Each error is examined to determine the changes necessary to correct it. This process is known as debugging the program. It is at this point that the student realizes the degree of care and the level of accuracy that is demanded of a programmer. It may be necessary to repeat the compile and debug steps several times until all errors detected by the computer have been corrected. Attaining a "clean compilation" does not mean, however, that the program will run. It merely indicates that all syntax and clerical errors have been eliminated. There may still be logical errors. These are detected by attempting to execute the program, using test data prepared in advance for the program. After all the logical and clerical errors have been corrected, the program is given the final test.

The process of "walking" the students through the complete programming circle may take more time with some groups than with others. However, the comprehensive problem approach provides students an opportunity to see early in their training that programming is a demanding profession. It tends to take away much of the "glitter" by presenting some of the less glamorous aspects of computer programming. By using realistic programming problems, the need for logical thinking ability, perseverance, attention to detail, and willingness to work is stressed. The students have a better idea of the total activity involved in programming.

After this initial exposure to programming, students are given additional problems, each designed to introduce them to additional language elements and instructions in a variety of programming situations.

The systems orientation approach goes a step further in orienting the programming student to the field of data processing. Rather than introducing the programming language, the instructor begins with a typical data processing systems problem. The objective is to show that a data processing system is a composite of a number of smaller problems, each of which requires a solution. The writing of a single program is not an end in itself, but rather is only a small part of the overall solution. For example, the typical payroll system is composed of a number of different programs. One may produce the payroll register, another may prepare the payroll checks, and another may process the year-to-date information and maintain the files. Each program, however, provides a solution to only a specific part of the overall problem and is either directly or indirectly related to all the other programs in the system.

The basic idea is to develop the instructional program around one or more small systems. The specifications and interelationships of each of the programs are developed cooperatively by the class under the guidance of the instructor. The first program in the system and the related language consideration are presented in much the same manner as described in the comprehensive problem approach.

The second and subsequent programs are then programmed by the students. It may be desirable to divide the class into smaller groups, each writing the programs for only a part of the system. After all of the programs are tested and debugged, the entire system is tested. This technique brings out very clearly the need for accurate and complete documentation and the ability to work effectively with others.

The systems orientation approach requires a great deal of planning if it is to achieve maximum effectiveness. A primary advantage is that the student learns programming in a realistic systems-oriented programming environment. He learns that the program is not an end in itself, but only a part of a larger problem. He learns to work cooperatively with others, develops the ability to communicate ideas, and is given the opportunity to develop his programming skills and demonstrate his creativeness in solving business data processing problems with a computer.

SELECTING A PROGRAMMING LANGUAGE TO BE TAUGHT

The selection of the programming language to be taught is a choice that is not easily made. There are a number of factors that will influence this choice. The first, and perhaps overriding factor, is the kind and size of computer available and the languages supported by it. If the only computer available is a second-generation computer, the chances are that the most likely language choice will be a symbolic assembler language. Although some of these older computers are capable of compiling programs written in a high-level procedural language such as COBOL (*C*ommon *B*usiness *O*riented *L*anguage), the amount of time required to do so is frequently prohibitive. This is particularly true in an educational environment when the student has a limited time to complete his solution.

Secondly, the choice may be governed by the education and training of the faculty member who will be teaching the course. Although the situation is changing, the greatest emphasis in colleges and universities is still the teaching of mathematical and scientific programming languages. Fortran is currently the most popular of these languages. Therefore, it is likely that many teachers will select Fortran because it is the one they learned first and probably know best.

Finally the choice may be limited by the objectives that are established for the course. As indicated before, if business applications are to form the basis for the programming problems, then a business-oriented language such as COBOL should be selected.

There are arguments both for and against the selection of any particular language. Because of the large number of languages available, no attempt has been made to include them all. Only those that are more commonly taught are discussed.

Fortran (*FOR*mula *TRAN*slator) is frequently selected as the first programming language because the basic language elements are few and relatively easy to teach. There is a smaller number of rules governing the use of specific instructions and the writing of Fortran statements. This means that a shorter period of time is required to cover the language of elements. The student gains confidence and a feeling of satisfaction by having written a program in a short period of time and having it executed correctly.

There are certain disadvantages with starting the business student with Fortran. Frequently, the business student who had difficulty with mathematics is frightened by the similarity of the Fortran language to mathematics; consequently, he may have a negative reaction to programming. The very nature of the Fortran language with its limited facility for handling mass data files in a straightforward manner and the difficulty in handling complex editing for volume printed output makes it difficult to use for many business applications. It is generally quite inefficient when attempting to solve business data processing problems. Perhaps the biggest disadvantage is that the student may be led to believe that he has programming ability when in fact he has the ability to use the computer as a tool in solving mathematical types of problems. He may not have the ability to handle the unique and complex logic frequently found in business applications.

Symbolic assembler languages are very often the first language to which the beginning programming student is exposed. Because of limitations on memory size and processor speed with the second-generation computer, high-level languages such as COBOL were not available, or if they were, they were very inefficient. The symbolic assembler language was often the only language appropriate for programming business applications.

When the third-generation computers were introduced, they brought with them much more complex assembler language elements which tend to make learning the language more difficult for beginners. The primary advantage of the symbolic assembler language is in the ability to create more efficient programs in terms of the memory size required to hold the program and the time required to both compile and execute the program. In addition, there are certain applications that cannot at the present time be programmed in COBOL, and these must be written in assembler language. Yet, because of the traditional pattern established in the past, many programming teachers continue to start their students with a symbolic assembler language.

Today we find that the use of assembler languages is diminishing. This might be attributed to the fact that the high-level languages are being refined to the point that they are more efficient in compiling programs which can be executed in a short-period of time. With the very large memories available, space is no longer a serious limitation. As indicated earlier, the sense of satisfaction a student receives from writing and executing his program is a strong motivator, and the difficulties encountered in learning an assembler language may have a detrimental effect on his progress. A potentially capable programmer may be lost through the frustration encountered learning the assembler language first.

COBOL has gained in popularity as a beginning language. Improvements in hardware and refinements in software have increased its efficiency and capabilities. Because of its near-English language structure, COBOL is relatively easy to teach and to learn. Once the language elements have been covered, it is possible to introduce complex business programming problems. This can be done at an earlier stage in the student's programmer training. Thus, a useful and practical skill is available should the student find it necessary to terminate his formal education.

Report Program Generator (RPG) is occasionally used to introduce the students to computer programming. It has the favorable advantage of being relatively easy to learn, and the student benefits by having an early sense of accomplishment. The disadvantages are two-fold. First, a program generator language is available on a limited number of computer systems. Secondly, and perhaps of greater importance, is that RPG is what its title indicates: a program generator. This means that the computer generates the program from the problem specifications supplied by the programmer. Thus, there is often little need for a detailed knowledge of programming logic or computer concepts. The main requirements are a knowledge of the problem and the ability to properly fill in the coding sheets.

Artificial languages are taught more frequently on the college or university levels where the basic objective is not to develop vocational competencies, but rather to explore the concepts and principles of programming. Since there is such a wide variety of language structures, instruction formats, instruction repertoires, and computer capabilities, no one computer system has all the possible characteristics. There is no "typical" computer system. Therefore, it is often thought desirable to use a language for a mock computer system for class discussions. The instructor, or more often the author of the text, presents one that is representative of the capabilities of most of the systems currently available.

The most commonly claimed advantage is that the student learns the basic characteristics and capabilities of computers in general. By building a solid foundation of concepts, he can easily learn the characteristics of an actual system when necessary. The major disadvantage is that the student learns only concepts and principles and does not have an opportunity to actually use a real computer. A real computer is a great incentive when writing programs, and through the experience of working with one, the student can learn what is involved in writing a program and using a computer.

CURRICULUM PATTERNS

A variety of curriculum patterns in business data processing have been developed in secondary schools, colleges, and universities. These can be divided into two broad categories, according to their primary objectives, as either vocational or nonvocational.

Vocational programs range anywhere from a one-semester certificate program to a four-year baccalaureate degree program, with a few colleges and universities which make advanced training available on the graduate level. Those programs of a year or less are usually quite narrow in scope and are designed to develop vocational competence only for a specific job classification. An example is a data preparation program designed to develop workers skilled in the transcription of data from a source document to an input media acceptable to a computer or other data processing device. Such a program would include keyboard data entry practice as well as the study and practice of related data preparation activities. Currently, keypunching is the most common data preparation activity. The primary prerequisite for a successful keypunch operator is a fast, accurate key-stroking rate. However, many new devices are being developed in which the operator uses the same keyboard skills but is also required to have an understanding of many other data preparation activities.

Community college. Data processing in the community college is most commonly vocational. Training qualified people for the data processing profession is the primary objective. In 1963, the U.S. Office of Education published a suggested curriculum guide for the two-year postsecondary program for the training of computer programmers and business applications analysts. Since that time, nearly every vocational data processing program has used this publication as an initial guide. Most, however, have made modifications which were necessary to accomodate the teaching of new concepts and techniques brought about by technological developments. For example, many have either discontinued teaching board wiring and punched-card data processing applications or have cut back significantly the time devoted to this type of training. More emphasis is being placed on the teaching of systems analysis advanced data processing concepts and more sophisticated programming applications.

Some community colleges have not chosen to undertake a vocational data processing program for a variety of reasons. Most of these colleges, however, recognize the need for some education in data processing and offer at least one course as an introduction to the field of data processing.

Typically the vocational business data processing program will include courses in the following areas: introduction to data processing, assembler language programming, procedural language programming (such as COBOL), programming systems, systems design and development, programming applications, advanced programming techniques, field project or work experience, accounting, business principles, and statistics. The number of courses and their content will vary with each program; therefore, this is not intended as an inclusive listing by specific course title, but to illustrate the breadth and types of training provided in these programs.

In addition to speciality and related courses, all vocational programs include a minimum amount of work in "general education." Most require courses in English, social studies, humanities, and mathematics, and some require a laboratory science such as biology, chemistry, or physics.

Although the purpose of vocational business data processing programs in the community colleges is to prepare workers for immediate employment after graduation, many students decide to continue their formal education at a college or university. When this happens, the student finds that not all courses will apply to a four-year degree. The transferability of each course varies with each institution and with the specific major pursued. In the few colleges and universities that offer a baccalaureate program in business data processing, a larger number of courses will be accepted.

Graduates of the postsecondary programs are receiving a relevant and useful education, evidenced by the fact that they are being accepted by employers as having a high level of skill and are placed in positions of responsibility after only brief periods of orientation. There have even been cases where a student's abilities were recognized early in his training and he was hired prior to the completion of his two-year program.

Secondary schools. The number of secondary schools teaching business data processing has grown at an increasing rate during the past 10 years, seeming to indicate that the time will come when data processing will be included for all students as a part of "general education." The responsibility for providing this education will probably be given to the business education department. It is imperative, therefore, that all business teachers obtain at least a minimum knowledge of the basic principles of data processing and the related vocabulary. This knowledge is readily available from a variety of sources. Many colleges and universities offer special courses in data processing for business teachers, and these can be supplemented by enrolling in the more technical courses offered at the community colleges. Much valuable information is made available through seminars conducted by various professional organizations. Periodicals and other publications in the field are especially valuable for learning about current practices and applications in data processing. People who work in data processing occupations are a ready source of information relating to specific jobs, working conditions, and other factors of employment. This kind of information comes from a point of view not usually available from any other source.

The feasibility of offering vocational programs in the secondary schools has been questioned both by educators and by employers. This is particularly true of programs that are designed to train computer programmers. Employers have indicated that they have no doubt that the secondary school student can master a programming language or learn the techniques necessary for implementing a previously defined and documented programming problem solution. Their concern does not seem to lie in the kind and quality of technical training made available in the schools. They are more concerned with the maturity of the student, his knowledge of business practices, and those things which are acquired only through experience.

The content of vocational business data processing programs varies considerably from school to school, depending upon a number of factors. Is the data processing program offered by a vocational high school, by an area vocational center, or by a "traditional" secondary school? What level of vocational competence is to be attained? What equipment is available for use by the students? What jobs are available for high school data processing students in the local job market?

Typically the first year in a three-year program is intended to provide a general overview, and the vocational student is given an opportunity to determine whether his interest is real or imagined and whether he will want to continue with the second and third years. He is given a foundation of basic concepts upon which he will build his specialized vocational skills.

The second and third years are primarily concerned with the development of specific skills. For example, during the second year of a computer programming curriculum the student is introduced to a programming language and develops related problem solving skills. This would be followed in the third year by more extensive programming practice and refinement of the programming skills through a variety of business applications. Concurrent with the speciality courses, the student will take those business subjects which provide him with a better understanding of business principles and their relation to data processing. In addition, he must meet the general education requirements necessary for graduation.

The one- and two-year programs usually differ from the three-year program in the amount of material covered and the level of skill developed by the students. The two-year program has the advantage of allowing more time in the curriculum for the student to broaden his background in related business subjects. It would seem to be a matter of balancing the need for more extensive background in related business subjects with the level of skill desired. It is doubtful whether vocational competence can be developed in one year beyond machine operation or data preparation activities.

The most common approach to introducing data processing to the secondary school student is by the development of a one- or two-semester introductory course or by the inclusion of data processing principles and concepts into existing business subjects. There was a time when it was believed that data processing could be taught only when there was equipment available. This has been proven to be quite untrue. With the availability of audio and visual aids, films, filmstrips, and other free and inexpensive teaching materials, there is no reason why data processing cannot be taught in all secondary schools. By using a little imagination and ingenuity, various principles and concepts can be introduced in all business subjects.

INTEGRATING DATA PROCESSING INTO OTHER COURSES

The following ideas are presented as possible ways of integrating data processing concepts into other business education subjects. The number of ways of doing this are limited only by the individual teacher's background, imagination, and ingenuity. Care should be taken to coordinate the specific ideas in order to avoid excessive duplication. It would also be better to have instruction on the more technical topics given in a data processing course, if one is offered. The emphasis should be on the *why* of data processing rather than the mechanics.

Shorthand and transcription. Develop shorthand outlines for common data processing terminology. Discuss the meanings of these terms and the context in which they may commonly be found. Prepare dictation materials using these terms for a variety of correspondence situations. These activities should be included as a regular part of speed-building and transcription practice. Lists of common terminology and their definitions are readily available from data processing equipment manufacturers and suppliers, from various business and data processing textbooks, and from publishers of professional magazines.

Typewriting. Present materials describing career opportunities available in data processing occupations requiring typewriting skills. Several types of keypunch simulators are available. Their primary value lies in the development of the key-stroking skills necessary when operating a keypunch. Arrange for classroom demonstrations of various keyboard-operated equipment such as automatic typewriters, flexowriters, and teleprinters. Stress the need for developing accuracy. Prepare and type a report on vocational opportunities in data processing or some related topic. Discuss the history of the typewriter showing the impact it has made on work in the office. Prepare or secure a poster of a large punched card showing the 80 vertical columns and 12 horizontal rows and the coding pattern for all the punches and characters. Have students plan a card layout from which their names and address could be printed, and using a blank card and the layout they have designed, have them fill in the appropriate data by blanking out the correct combination of punch positions on the card. Porta-punch cards can be used effectively for this type of exercise because the various punch positions can be removed without a keypunch in the classes. These cards can be run through an interpreter or accounting machine to have the data printed either on the card or on a sheet of paper.

Office and secretarial practice. Present principles of data collection and preparation for automated systems and relate these to comparable activities found in the office. Develop a classroom library of data processing materials including magazines, books, and sales brochures from manufacturers. Show films and filmstrips that explain data processing and applications to business procedures. Invite a panel of secretaries or other office personnel from offices where data processing equipment is used. Research job opportunities for high school students in offices having data processing equipment to determine the specialized skills that would be of value on these jobs. Prepare a unit of filing and sorting, using punched and interpreted cards to illustrate that the filing theory is the same whether manual or automated methods are used. Proper card-handling techniques can be included as a part of this unit. Have the students prepare simple flow charts of various office tasks, showing in detail the different activities to be performed and the sequence in which they occur. Have the students prepare a panel discussion of the data processing functions of recording, classifying, sorting, computing, summarizing, communicating, and storing, comparing manual methods with the way these functions are performed by machines.

Business law. Discuss the uses of data processing equipment by various law enforcement agencies. Contact the police for a presentation of some of the equipment they are using and the future uses anticipated. Assign a written or oral report on the law and the computer. Topics such as "Invasion of Privacy by the Computer" will be of interest to most students.

Business mathematics. Discuss and give examples of how automated data processing equipment has taken the drudgery out of payroll computations. Have students work various business problems and show how the computer will perform the same operations in a fraction of the time. Prepare flow charts of the steps involved in solving mathematical problems. Develop exercises using various number bases such as binary and octal and the conversion from one base to another. If the appropriate equipment is available, minicomputers can be used to solve problems and demonstrate the use of the computer as a mathematical tool.

General business. Since this course covers such a broad spectrum of business, it is desirable to relate the uses of data processing equipment in as many areas as possible throughout the course. The chapter on communications might be supplemented with a discussion of the automatic billing procedures that result from the completion of a direct dial, long distance phone call. The unit of transportation might include a discussion of the color coding system on railroad freight cars and the optical readers used by railroads in their locator and billing system for freight car accounting.

A variety of business simulation programs and management games are available. These can be used effectively to increase student interest and participation in class. They are commonly used by universities, colleges, and community colleges; however, there are some which would be appropriate for use in secondary school business classes.

Have students collect materials for a bulletin board display of data processing job opportunities, equipment, and applications. Develop a current events "diary" of new items relating to various data processing topics as they appear in magazines and use as a basis for class discussion. Assign oral or written reports to students on some phase of automation that interests them.

Bookkeeping and accounting. After completing the accounting cycle, introduce the ways in which the various activities can be accomplished by machines. Use flow charts to illustrate the relationship between each of the activities and how they logically fit together. Develop a chart of accounts for the various accounting entries. Using transactions based on this chart of accounts, have the students simulate the way these transactions, when recorded once, would be handled by machine for the completion of different accounting functions. These transactions could be recorded and interpreted on punched cards to enable the students to manipulate them according to the needs of the specific function. Examine and discuss checks and bank statements from a local bank. Explain the use of MICR (*M*agnetic *I*nk *C*haracter *R*ecognition) coding along the bottom of the check. Several publishers are marketing materials which use the computer to supplement the teaching of accounting. Access to a computer is required, which could be a limiting factor.

CONCLUSION

The activities that are appropriate for incorporating data processing principles and concepts in secondary school business classes are almost unlimited. The following suggestions are often repeated when discussing the introduction of new material into a course; however, they are worth repeating at this time.

Use appropriate audio and visual materials where applicable. Preview all films, filmstrips, and other media to make certain that they are appropriate and not just time killers. Do not try to do everything at once. Incorporate new and additional materials over a period of time. Because the field of data processing is continually changing and new applications and equipment are being developed, all units and materials should be updated frequently.

Remember that principles of data processing are not difficult to learn. Modern data processing using computers and other automated equipment is merely a new method for accomplishing many of the business functions that have been performed in a variety of ways in the past.

CHAPTER 14

Communications

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The carry-over of the language arts skills into typewriting, stenography, secretarial, and office procedures is a prime example that there is little, if any, transfer of learning from one field of knowledge into others unless the instructor actually teaches for it. Even within a single course, learnings achieved one week can be forgotten by the student the following week unless both student and teacher attention is focused constantly on what may be referred to as the "4 R's" of teaching-learning (recall, review, reinforcement, and refinement). Student *disuse* and *misuse* of the language skills, therefore, must be replaced by frequent, deliberate correct *reuse* if a high degree of competency and mastery is to be achieved in the business subjects in which these skills are basic.

Fortunately, within the last decade several studies have shown that the typewriter, used with suitably prepared materials, good methodology, and teacher stick-to-itiveness and emphasis, is an effective teaching-learning tool in achieving a more nearly complete mastery of language arts skills, *with no loss to the skills of typewriting.* Using the typewriter in such a manner develops a oneness between the typewriter and the student so that "reaching" for the typewriter to communicate or to record is as much a habit as reaching for a pen or a pencil.

The purpose of this chapter, therefore, is to outline techniques and procedures for using the typewriter as a teaching-learning tool for applying the principles of the "4 R's" in the presentations and follow-ups of the language arts skills as needed by both shorthand and nonshorthand pupils.

But why both shorthand and nonshorthand pupils? Today, except for the shorthand element, the competent stenographer and the competent clerk-typist, as distinguished from the copyist, enjoy about the same financial and prestige

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status in business. Many of the on-the-job experiences require a more technical and practical form of the language skills than the speaking and writing level expected of all pupils. Both shorthand and nonshorthand employees do production typing, edit and type from rough drafts, proofread, and compose memorandums, reports, and letters. And, of course, there is also another important reason these corollary learnings are important to all students for attaining better end-results in typewriting a thinking, high-performance typist.

PRELIMINARY PLANNING AND ORGANIZATION

Before any extensive program can be implemented, careful planning and organization must be completed by those who are expected to do the implementing (real learning and implementation result best from a planned and direct approach, not from one left to chance). The initial step in setting up a comprehensive communications teaching-learning system is to research, plan, and organize two broad areas:

1. A three-year sequential plan (grades 10, 11, and 12) so that the teaching and learning of the various aspects of communications become an integral, progressive part of all courses in which typewriting is involved
2. The preparation and adoption by all business teachers of an office-style manual or handbook so as to more nearly assure student success in the program.

Pupils, through no fault of their own, frequently work in a continued maze of conflicting opinions, textual references, and teacher requirements. In their elementary and secondary schooling, they probably worked from several differing language arts textbooks and were instructed by several teachers, each differing in training, knowledge, and basic approach to the vocational versus academic philosophy.

This handbook should deal with such topics as: capitalization; abbreviations (use of, correct typing of); hyphenation (word division, compound words); apostrophes (possession, plurality); punctuation; writing of number expressions; and English usage including subject-verb agreement, pronoun-antecedent agreement, correct use of pronouns, parallel sentence structure, double negatives, and comparison of adjectives and adverbs. Once compiled, the handbook should be used faithfully by each business teacher within the department so that each is fully aware of the framework within which to work for successful teaching-learning coordination from the tenth through twelfth grades. Obviously, uniform rules and principles also help eliminate the teaching of contradictory principles and the occurrence of embarrassing situations that could result.

The handbook should be issued to each pupil in the secretarial and office procedures classes in grades 11 and 12 so that no pupil need be further subjected to "what-and-when-to-do-which-for-whom" situations that arise when teachers within the same department go separate ways. No pupil, for example, would have to remember to punctuate compound sentences or a series of words, phrases, and clauses one way for one business teacher but differently for another.

With the above two areas of concern completed, two additional areas must be thoroughly researched and implemented, but these can be done concurrently with the preparation of weekly and daily lesson plans.

1. Each unit of work to be done at the typewriter should be carefully researched to determine if any or all of the "4 R's" for the language skills can be made an integral part of the lesson.
2. Materials to be used in the various classes (both shorthand and nonshorthand) should be updated to conform to the rules and principles agreed upon in the handbook. All such materials should be cleared, for example, of obsolete, stereotyped expressions such as "I am in receipt of your letter" and "Thanking you in advance."

THE INITIAL IMPLEMENTATION OF TEACHING THE LANGUAGE ARTS SKILLS

The primary objective of the teacher of first-year typewriting is to make the student master, not slave, of the typewriter by (1) developing good typewriting techniques during *all* stages of teaching-learning typewriting; (2) applying daily the principles of the "4 R's" to those techniques, and (3) during the latter three-quarters of the course, applying those techniques to the simpler forms of typing manuscripts, letters, and tabulations. All other forms of vocational typing are better deferred to the secretarial and office procedures courses in the eleventh and twelfth grades.

There is also, however, a fourth concern of the first-year typewriting teacher: applying directly or indirectly the "4 R's" to as many of the basics of language arts skills as possible. For example, in introducing the typing of simple manuscripts (when words of more than two or three syllables become standard copy material), dual-purpose drills can be used. These are drills that are designed to develop not only typewriting performance, such as stroking, finger patterns, locational security, and the like, but also to increase the student's knowledge of the language arts and reading skills.

To get the most teaching-learning power from dual-purpose drills, however, each lesson must involve teacher-directed previewing. Thus, each lesson, whether it involves a drill, a letter, a manuscript, or a tabulation, becomes a communication-oriented presentation combined with the goal of improved typewriting efficiency. With such an approach, the student should at least be aware of the goal of improved typewriting efficiency, if not necessarily aware of the secondary goal of reinforcing the communications skills.

Introduction to spelling, punctuation, and reading. With the exception of the introductory lessons in beginning typewriting, the improvement of spelling, punctuation, and reading should be an integral part of every course in which typewriting has a dominant role. Small doses of spelling, punctuation, and reading drills should be planned as a part of each day's lesson for two good reasons: (1) to improve the two most obvious aspects of correct writing—spelling and punctuation, and (2) to improve student ability to read for word perception.

A misspelled written word is the most obvious of errors, and where errors of writing are preserved on paper (unlike those of speech that disappear after spoken), every positive means and technique to improve the spelling ability of the student should be utilized. Spelling improvement should be included in practically every typing preview through use of a pattern of typing cumulatively the syllables within a word. For example, in the word *com-mu-ni-cate,* the student types *com* three times, *commu* three times, *communi* three times, and finally the whole word until the next word is called out by the teacher.

This technique of previewing for spelling and typing improvement (a) helps the student see every letter of every syllable of a word, (b) develops student self-confidence by acquainting and helping the student beforehand with copy difficulty, and (c) provides the teacher with opportunities to review spelling rules. This visual-auditory approach, although helpful for all students, is especially beneficial for the lower-ability student who has difficulty with written words.

Numerous classroom instances show that it is possible for a student to be an excellent reader but a poor speller; the converse is also possible, although the number of instances appears to be far fewer. Therefore, as a general principle, spelling difficulties and reading problems often go hand in hand, and while the improvement of spelling does not automatically assure improvement in reading, it does seem to have a positive effect.

One of the keys to improved spelling and reading is teacher persistence in using dual-purpose drills that not only improve the performance skills of the typist but also integrate with the typing drills the memory stimuli of (1) sound, as correctly pronounced by the teacher when dictating words for typing; (2) appearance or sight of the words from the printed page or transparency; and (3) the "feel" of the graphic makeup of related words (word families) as the student types cumulatively by syllables.

Such dual-purpose drills can include some of the following examples.

1. Words employing sound-alike endings: *-ary, -ery, -ory, -ury; -ar, -er, -or; -cial, -tial; -cion, -sion, -tion; -al, -el, -il, -ol, -ul, -le; -ble; -ent, -ence; -ant, -ance*
2. Words employing similar or sound-alike beginnings: *ante-, anti-; pur-, per-, pro-, ser-, sur-; de-, dis-, des-*
3. Words embodying *ei* and *ie: receive, chief, their*

4. Words sounding *c, cc, ch,* or *ck* as *k*: academy, architect, gimmick, accumulate, vacuum
5. Words sounding *dg* or *ge* as *j*: charge, encourage, percentage, knowledge, judgment
6. Words pronouncing *ph* as *f*: nephew, paragraph, telephone
7. Words having similar sounds, but spelled differently: silen*c*e, expen*s*e
8. Words containing silent letters: indi*c*t, colleag*ue*, colum*n*
9. Words containing double letters: te*rr*itory, a*cc*o*mm*odate
10. Words frequently mispronounced: separate, privilege, library, February, maintenance
11. Words pronouncing *qu* as *kw* or *k*: acquaint, require, unique
12. Negative word beginnings: *un*l[illegible], *il*legal, *im*mature, *ir*regular
13. Words embodying *ough*: enough, bought, thorough, through, tough
14. Words embodying digraphs: *ei, eu, oa, oo, ou, ow, oy.*

Of course, for almost all spelling rules there are exceptions, variations, and alternatives that must be memorized hindrance, extension, remembrance, disastrous, irreparable, inseparable, comparable, applicable, repetition, entries—but even many of these can be categorized in the more advanced stages of teaching.

Punctuation. Not too many opportunities are present for improving punctuation skills in first-year typewriting; however, every effort should be made to apply the "4 R's" to the basic rules for the correct use of the comma, semicolon, quotation marks, hyphen, apostrophe, and so forth.

For example, the "4 R's" can be applied to the use of the comma in such situations as the following: (1) when teaching letter format, the comma rules treating the separation of parts of a date and parts of an address can be reviewed; (2) when drilling for refinement and reinforcement of the manipulative control of the comma, dual-purpose copy can be used that contains sentences using the comma to separate parts of a compound sentence; sentences that contain words, phrases, and clauses in a series; sentences that include quotations; sentences that illustrate the introductory *if, when, because,* and similar clauses; (3) when previewing copy that the student is to type (timings, letters, manuscripts, reports), special attention can be called to good examples of punctuation within preview material and the student can type those examples two or three times as part of the preview.

Introduction of word division. When a student begins to arrange simple manuscripts, the use of the hyphen becomes necessary if he is to maintain an even right margin. Fortunately, today's English usage has reduced the number of word-division rules from about 20 of several years ago to a relative few:

1. Divide only at a syllable.
2. Do not leave a misleading syllable division (real-ity, read-justment, her-oism).

3. Leave at least a two-letter syllable on the upper line (al-ready).
4. Leave at least a three-letter syllable on the succeeding line (cooper-ate).

Rules other than these four are now considered "preferred," and even the last two are being disregarded more and more by today's correspondents so that soon the number of word-division rules will probably be reduced to the first two.

Proofreading. From the initial stages of submitting work to the teacher for evaluation, it is the student's responsibility to see that such work is both technically and communicatively error-free. Thorough training in using the paper bail for accurate proofreading is helpful. Under this technique the student is taught to (1) roll the typed copy back to the first line, (2) read the typed line carefully against the original copy, (3) indicate each error in the typed line by a light checkmark above it, and (4) move the copy to the next line for similar checking—in other words, a line-by-line proofreading technique, using the paper bail as a guide for the eye to follow.

A second technique for achieving accurate proofreading is the teacher's method evaluating work that is not error-free. In some cases, the negative approach seems to work best—for example, in timed writings, disqualifying a timing for an unchecked error. In other cases, a positive approach seems to work better—for example, bonus points being given for accurate proofreading in a production job.

Listening. Perhaps the one facet of communication that is essential to the success of the others is that of listening for the speaker's intended meaning. Many words and combinations in the English language sound alike when spoken rapidly. Slurring of syllables, speech impediments, or an unusual accent all increase hearing difficulty. While the context conveys the intended meaning in many instances, there are occasions when it does not.

There are several avenues open to the business teacher who wants to develop the "art" of listening for students: (1) make sure that each student at least appears to be listening, not occupied at some other tasks; (2) make sure that instructions of new material proceed from the simple to the complex—when a student misses a step in the instruction, his attention span is shortened; (3) give instructions (as distinguished from teaching) only once—do not write the assignment on the board; (4) insist that when a student responds to a teacher's question, he speak loudly and clearly so as to be heard by the other students—repetition of the answer by the teacher is a waste of both effort and time. Repetition by the teacher should be consciously done for reinforcement learning only.

Reemphasis of English usage, punctuation, and reading comprehension in grade 11. In grade 11, emphasis in communication should be on English usage and punctuation, with continued work on the improvement of spelling, reading comprehension, and proofreading, using the typewriter really as a "tool of literacy," a teaching machine for the improvement of the communication skills rather than merely a writing implement. Through daily preview of teaching materials and specially prepared communication lessons, special emphasis should be continued on correct word usage, grammar, punctuation, spelling, use of numbers, and proofreading.

A. Previewing:
  1. Timed writings
  2. Accuracy-speed development drills
  3. Typewriting production work

B. Specially prepared lessons:
  1. Syllabication and pronunciation
  2. Word-division rules
  3. Study guides for machine transcription
  4. Correct word usage
  5. Punctuation
  6. English usage
  7. Proofreading.

The pattern of previewing in grade 11 follows that established in grade 10. Following such a teaching procedure with suitably prepared materials adds a new dimension to the application approach in advanced typewriting: teaching the student to think (business sense) and to apply that knowledge at the typewriter. However, the pattern for previewing specially prepared lessons in communication skills must also include subject matter. For example, the previewing in the presentation of a punctuation lesson should center around a study guide with examples and application sentences, followed by letters, memorandums, and reports. A similar procedure can be followed in the presentation of work in English usage as well as in the advanced work on the improvement of spelling, reading, and punctuation.

Combining the transcribing machine with the typewriter as a teaching-learning unit provides additional reinforcement of the communication skills for both the shorthand and nonshorthand student. The teacher may use either commercially prepared belts for the transcriber or he may dictate his own material. There are a number of advantages to teacher-prepared belts: (a) the material can be geared to the particular students involved in the program, and (b) the teacher's voice is familiar to the students.

To develop a meaningful machine transcription unit involving the communication skills, the following points must be emphasized:

1. The material should proceed from the simple to the more difficult.
2. Guide sheets should be distributed to assist the students.
3. Drill practice should be used for teaching, not testing.
4. Each lesson should emphasize a limited number of teaching-learning points—there should be set behavioral objectives.

A prestudy guide sheet, correlated with each belt, should preview the most difficult spelling words and review punctuation pointers or other transcription problems of that particular belt or disc.

Proofreading. After its initial presentation in the beginning typewriting class, proofreading should gradually take on greater importance. In grade 11, the shorthand and nonshorthand student must be taught to read and to correct for meaning before submitting the finished copy. Some errors that the student must become aware of include:

A. Spelling substituting near-alike words, wrong suffix or word ending, wrong prefix or word beginning, omission of syllable or letter in a word, and omission of a letter or number in a series
B. English Usage agreement of subject-verb, pronoun-antecedent agreement, word usage, and sentence structure
C. Inconsistencies common-sense errors (wrong dates), omission of words or lines in copy
D. Technical Arrangement.

At this level the proofreading-copyholder method may be introduced as an alternate technique to the paper-bail method, in which the typist reads aloud from the original copy while the proofreader (another person) follows the copy being checked. In certain areas, such as statistical typing, this is the preferred method.

Additional work in proofreading may include draft copies containing errors in the basic principles of punctuation, number expressions, and spelling (as they are progressively taught in grade 11). These kinds of drafts focus the student's need to proofread carefully all materials before beginning to type them in final form. Whether the material is shorthand notes or rough-draft copy, the students should include the following steps before transcribing:

1. Insert and circle all necessary punctuation marks.
2. Verify spelling, word usage, number expressions, and the like.
3. Check last-minute instructions of the dictator or writer.

In the case of spelling words, the "profile" technique is more desirable than showing misspelled words. This technique avoids misspelled words by substituting "profiled" words (rec--ve, proc-d-, sep-rate, and the like). This device removes the harm of a student's visually seeing a misspelled word; instead, it calls particular attention to the particular word, makes the student think, and forces him to use the dictionary in case of doubt.

During final proofreading, both the shorthand and nonshorthand student must frequently be reminded to make a careful final check for accuracy, meaning, and technical arrangement of the finished copy *before* removing it from the typewriter, using either the paper-bail or copyholder-proofreader method.

Communications in shorthand. Additional opportunities are afforded the shorthand teacher for further review, recall, reinforcement, and refinement of the communication skills. It must be remembered that the teaching of the shorthand theory is only the preliminary stage in the ultimate multiskill of transcription.

In the beginning stages of teaching shorthand, the teacher should have the student spell and define homonyms and pseudohomonyms that are written with the same shorthand outline (e.g. principle, principal; sight, site, cite; their, there). In student reading from shorthand plates, punctuation should be included. The student must be taught to read shorthand for context and meaning. Chalkboard previewing should include not only shorthand theory but also anything that the student may find troublesome in the communications aspect of the transcript.

Presupposing that the student has mastered the skill of typewriting, the pretranscription stage of shorthand naturally takes place at the typewriter, and much of the material should consist of dictated sentences, short paragraphs, and letters that center around the problems of punctuation, English usage, number expressions, or spelling for typewritten transcription. Words and phrases emphasizing the particular problems of the lesson may be previewed either at the chalkboard or though a teacher-prepared study guide. The student may also be directed to transcribe sentences from shorthand plates or from homework which involve punctuation, English usage, and similar types of student-teacher hurdles. Misspellings, especially, should be heavily penalized. A verbatim transcript should be required of every student during the pretranscription phase of the formal course of transcription.

An especially effective device for developing the powers of listening in the stenographic classes is requiring students to take assignments and all instructions in shorthand. Thus, having to listen for dictation purposes, having to write the instructions for recall purposes, and having to read them for follow-up are advantages these students have over nonshorthand students.

GRADE 12–A FUSION PROCESS

For both shorthand and nonshorthand students in grade 12, the English usage, punctuation, number expressions, and spelling taught in grades 10 and 11 should be so fused that the net result is a completely communications-oriented graduate.

Proofreading. In grades 10 and 11, proofreading concentrates chiefly on detecting and correcting errors after work has been typed. In grade 12, however, proofreading emphasizes the more natural dimension of previewing material for detection and correction of errors before proceeding to type. This type of proofreading may be referred to as preproofing.

Such preproofing may start off with sentences containing errors in English usage, punctuation, use of numbers, spelling (preferably profiled words rather than misspelled words), proceeding gradually to paragraphs, letters, manuscripts, and the like.

An effective technique for teaching students to become more observant and critical during preproofing is to include a key with each piece of work to be proofread, itemizing the number and kinds of errors to be found in the work being proofread (e.g., 2 subject-verbs, 1 pronoun-antecedent, 3 commas, 1 possessive, etc.) However, too many errors in any one work assignment should be avoided. Such an assignment is apt to lose its prime purpose of thorough preproofing and become a game instead.

In fact, pieces of work containing only one or two errors, or even no errors, should be given occasionally. The secret of a good proofreader is his ability to find that *one* elusive error that everyone seems to have missed.

Naturally, all work to be duplicated by stencil, master, or offset must be thoroughly proofread before being reproduced. The student must be made to understand that each undetected error on a master copy is multiplied by the number of copies run off.

The shorthand student, during preproofing of dictated material, should check shorthand notes for the following points:

1. Necessary corrections in grammar and language structure to express effectively the dictator's intent
2. Insertion and circling of punctuation marks
3. Verification of spelling and word usage
4. Verification of figures, dates, time schedules, itinerary, appointments, amounts, and the like

For the nonshorthand student, further work with rough drafts needing corrections or working with materials from the transcribing machine that are preceded by study guides are both realistic and good techniques for developing the skill of accurate preproofing. During final proofing, accuracy of message and the technical appearance of the finished product should be continuously emphasized for both the shorthand and nonshorthand student.

Transcription. For the stenographic student, the complete fusion of communications skills takes place in the advanced stages of transcription where the concept of mailability (a transcript grammatically and technically correct and conveying the intended message) replaces the verbatim transcript that may be required in the initial stages of transcription. However, further reinforcement and refinement of the communications skills may be attained through using preview guide sheets that list not only the difficult shorthand outlines in a daily cluster of letters (those that deal with a specific subject matter) but also include punctuation, grammar, number expressions, and spelling pointers that appear in the letters to be dictated and transcribed.

And, of course, office-style dictation should involve not only the usual change of wording in the middle of a sentence, changing dates, correcting appointments, stumbling and fumbling for words, and the like, but also such as the following: errors in subject-verb agreement, errors in figure computation, errors in pronoun-antecedent agreement, unparallel structure, incomplete sentences, and the like.

Composition unit. A composition unit provides for an excellent fusion of all phases of communications skills for both the shorthand and nonshorthand student. Most of the problems in connection with this unit can be alleviated with the teacher's constant stressing of the "3 C's": clearness, conciseness, and correctness (especially conciseness). Students tend to feel that short letters are unacceptable, probably because of their association with the length of letters that they had to type in typewriting classes and those that they had to transcribe in transcription classes.

Teaching letter writing should include only exercises that allow a student to compose letters relating to his experience and knowledge: thank-you notes, job-application letters, requests for college or secretarial school brochures, mail-order purchases, inquiries for travel information or vacation trips, incorrect shipment of merchandise, errors in personal charge statements, and the like. Initially, the student should prepare rough drafts of his thoughts, discuss the structure and content with the instructor, and then refine and type the correspondence, aiming for mailability. However, as the work becomes more familiar, the "crutch" of rough drafts should be taken away, especially on short business letters. The student is expected to compose directly at the typewriter.

The "in-basket" activity may be an additional way to strengthen the composition unit. The name comes from the action of the worker in an office who, on coming to work in the morning, reaches into his basket and removes the materials that have been deposited there by his supervisor and messengers from other departments. In this simulation activity, the student is given a set of materials on which to work. He first determines the priority of the tasks and then performs the various jobs. The total time may extend over several class periods and involve a series of activities. Priority determinations and the quality and speed of the work provide the basis for student evaluation.

The learning-packet approach is another effective method of teaching letter composition. The learning packet is a self-contained set of teaching-learning materials structured for individualized instruction. With this approach, the accelerated student need not repeat materials he has already mastered, and the slower student need not do a job beyond his ability. At the beginning of the unit, a pretest is administered to determine each student's level of proficiency. A student who does not meet the performance objectives is given a learning packet which includes: (a) the concept or skill to be learned, (b) performance goals for the concept or skill, (c) the "how-to-learn" process—activities, audiovisual aids, textbooks, etc., and (d) posttest. A student who meets the performance objectives is given a more advanced lesson on letter composition.

As a refinement of the composition unit, the instructor may ask the student to compose answers to correspondence that he receives. There seems to be nothing more motivating to a student than the "real thing": memorandums to the principal, thank-you notes to businessmen, requests for sample copies of books, etc. The shorthand student could take down all the information in shorthand and then work out the correspondence from the dictated notes; the nonshorthand student could be given instructions on either the transcribing machine or with just a few short handwritten phrases.

Oral communications. Of no less importance than the ability to communicate correctly in writing is the ability to communicate orally in groups, but especially on the telephone. Throughout the business curriculum, every opportunity should be given for the students (1) to listen to each other and (2) to speak in clear, audible, and grammatically correct sentences to each other, in both small groups and to the class.

With the emphasis on communication by telephone today, the one unit of work that certainly should be emphasized in grade 12 is the correct use of the telephone. The student should have sufficient practice listening attentively to a caller, recording accurately all information, and following through on the conversation.

CONCLUSION

It must be remembered that the teaching of business communications is not a "one-shot deal" which can be taught as one unit in the business curriculum. The focus in the teaching of communications must constantly involve the "4 R's" of teaching-learning: recall, review, reinforcement, and refinement. At every opportunity, especially where the typewriter is involved, these "4 R's" should be applied individually or collectively. The discussion in this chapter has presented but a few ways of tackling a very difficult problem. Continuous awareness by both the teacher and student of the importance of a communication-oriented individual in the business office may be a first step in overcoming this learning problem for many students.

CHAPTER 15

Business Mathematics

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Changes in methods of teaching business mathematics were initiated when the "explosive revolution" in mathematics and the teaching of mathematics began in the middle fifties. More pronounced changes were observed as the "computer age" was ushered in.

Factors that precipitated the "explosion" and had a widespread effect on mathematics at the elementary and secondary levels included: (1) the mathematical inadequacies of many high school students; (2) the new or extended uses of mathematics into areas such as the sciences, psychology, the social sciences, humanities, and the arts; (3) and the acquisition of new information on how children learned. Thanks to the behaviorists, new knowledge on the psychology of learning that includes the ability of children to discover mathematical ideas is available to all.

Scientific discoveries and technology, which are doubling every 10 years, are the basis upon which new businesses and industries are founded. Indeed even the storage of this mass of new-found data presents problems whose solutions will lead to new techniques. As a result of new and extended uses in mathematics, stimulating and exciting things have been taking place in business mathematics.

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The scientific application of this new technology has made what seemed impossible mere routine and has reduced miracles to calculated certainties. This new technology that will give birth to approximately two million new businesses during the next 25 years allows us to see, without dreaming, that change will forever be a basic factor of life. It is imperative to see that this change has meaning and direction.

Because of these changes, students should be prepared for nonexistent jobs, whose nature and properties are unknowns. Yesterday's methods will not equip workers for tomorrow. Preparation for initial employment is only the beginning of the education students will need, for it is estimated that they will have to be retrained three times during their productive or working years to be proficient in new jobs that are being generated.

Students bring with them very definite ideas about what they want to learn. This is good. They must be helped to learn these things, but they must be made to realize that neither their present knowledge nor experience will allow them to make definitive decisions about everything that should be learned. Each student must be made aware that his store of information is insufficient to enable him to manage successfully new problems without the mastery of additional facts and how these facts, once mastered, are to be used. He must be guided to realize that he is the principal tool in his own learning process.

The ultimate goal of business mathematics must be its practical application as a tool. Business mathematics is applied mathematics and, as such, has been taught with greatest emphasis on its application for the individual as a worker and consumer. Within the goal of this application may lie some solution to our problem. The application of mathematical principles to real problems serves a twofold purpose: it helps in acquiring and retaining new information, but its primary purpose is to make sure that a student really understands, as evidenced by his ability to use the information to solve concrete business problems with speed and accuracy. The real question is, Can he perform the given task?

REASONS FOR CHANGE

Many business educators recognized that their students needed basic computational skills, but they could not agree on when and where business mathematics should be taught, if at all. Authorities were in agreement that the course as it was being taught was not achieving the results it should. The results of the survey, *Major Issues in Business Education*, indicated that there was controversy as to whether business mathematics should be integrated with bookkeeping or taught as a separate course, at what point in the high school curriculum it should be taught, and what should be included to make the content relevant.[1] This data and the growing use of "operational research" justifiably spurred many to examine their objectives, the course content, and the methods of teaching business mathematics with the intention of making the course more relevant and practical.

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[1] Gratz, Jerre E., *Major Issues in Business Education*. Monograph 106. Cincinnati: South Western Publishing Co. 1962, pp. 21-27.

Topics that were included in the content of a business mathematics course prior to 1960 simple and compound interests, banking, building and loan calculations all depended on accuracy with integers and fractions. While the objectives were excellent, the methodology employed by most teachers was that of rote memorization with little or no understanding of the concepts involved. As a result, retention of knowledge was at a low ebb.

Motivation for learning was limited; negative attitudes toward arithmetic were not easily eliminated. It is believed that ineffective teaching techniques contributed to widespread failure of these objectives, yet few if any remedial programs were established to remove the deficiencies.

EMERGING METHODOLOGY TO MEET CHANGE

Business mathematics objectives, content, teaching techniques, and development has been affected by the electronic computer and other forms of automation. Since so many high school graduates were deficient in mathematical skills and concepts, the objectives of the subject matter disciplines were reassessed and redirected. The reassessment resulted in a redirection of emphasis in objectives and an attempt to state them more concretely; thus stating predetermined performance goals becomes a number one priority for the teacher. Performance goals are terminal goals that *can* be taught, and they should be stated in terms of observable behavior. Students should be familiar with these so that they will know precisely what is expected of them. Fortunately, teachers know the job entrance level of proficiency required, and obtainable goals can be written to meet these levels.

It is essential that the objectives be stated in terms of overt student behavior. These should be motivating, but they should be within the range of the ability of the student to meet them. Behavioral objectives can be established for every unit of work. It is recommended that the teacher, inexperienced in the use of this methodology, construct behavioral objectives for very small units of work. Try them out by teaching the unit, testing the unit, and evaluating the results. The acid test is: "Can the student perform the given task within the stated limitations?" If not, reteach, retest, and reevaluate. Ask yourself these questions: "If they succeeded, why? If they failed, why? Were the objectives set beneath their ability, beyond their ability, or were they adequate and sufficient? Were they worthy of being used again?"

Undergirding the objectives must be the experiences necessary for acquiring knowledges and skills essential to future problem solving. While training students for the future, basic and unique characteristics of office work which they encounter now should not be overlooked. These must be mastered in order to have something upon which to build. Work in business mathematics will be mostly in the cognitive domain emphasizing the mental processes, and it must be begun with its lowest variable, knowledge.

The construction of behavioral objectives requires time and thought as well as experience. Objectives constructed to meet the needs of the students enrolled in the class must take into major consideration student abilities as determined by the pretest and the knowledges and skills students should have gained as a result of having taken a unit of work. As teachers become proficient in this skill, they should encourage their students to assist in the construction of objectives for a unit of work or project that the students suggest or in which they have a special interest.

All units of work must be constructed to answer three questions: (1) Do they tell what the teacher wants the learner to be able to do as a result of having had instruction? (2) How will the teacher know when he has taught the task? (3) What procedures will best teach the student what the teacher wants him to learn? Only when these questions can be answered and when the objectives have been stated in language that has meaning and understanding for the learner are they valid. Students must know what is expected of them, under what conditions they must perform, and what is accepted as minimum performance.

Two examples of behavioral objectives that could be considered as accepted achievement for a unit on "Figuring Payrolls" could be as follows:

> Given the following items (1) a calculator, (2) 15 time cards containing total hours worked per day for a five-day week, rate of pay, and number of tax exemptions allowed, (3) Social Security tax table, (4) federal withholding tax table, and (5) payroll register, student as payroll clerk will calculate and record on each of the 15 time cards employees' net pay and complete the payroll register in 30 minutes with 100% accuracy.

or:

> Given a payroll change sheet containing the names and net pay of 15 employees and a change memorandum form, student as payroll clerk will list, summarize, and total both forms in 20 minutes with 100% accuracy.

After having taught a unit on percent, a teacher might feel the learnings he wishes his students to be able to demonstrate are contained in these behavioral objectives:

> Given pencil and paper, student will solve and record answers in a maximum of 10 minutes and with 100% accuracy the following problems. (1) As a salesman, you receive a base salary of $89.50 a week, plus 1½% of all sales exceeding your weekly quota of $1,000. What will be your gross salary for one week if your total sales were $2,620? (2) A store purchases lamps for $9.25 each and sells them for $12 each. If their operating expense is 25% of their net sales, what is their percent of net profit, based on the selling price? (3) On January 6, a clerk discounted at his bank a

> customer's 90-day, 5% interest-bearing note of $600, dated December 6. The discount rate was 7%. What are the net proceeds of this note?

A teacher has the responsibility to know of changes that have taken place in the nature of learning, as a result of experiments and research, and to become proficient in the work of the behaviorists. Students should be guided, but they should also be given the freedom of independent study and the joy of success as they work toward predetermined goals.

COURSE CONTENT

The development of the student's ability to perform fundamental operations with speed and accuracy is not sufficient. In order for the student to improve his ability to retain computational procedures and concepts, emphasis should be placed on the "why" of the operation. With businesses employing high school graduates, emphasis should be placed on the student's obtaining skill and knowledges needed for intial job competency. The skills should include those needed by the technician, for it is the work done by this large and ever-growing group that controls the direction now being taken in business mathematics.

What should be included in a business mathematics course? The content must have an extremely wide range. This becomes more evident as a class is observed. A heterogenous class is composed of: (1) students who are not competent in the fundamental operations using the decimal number system on one hand, and those who have advanced through operations in the binary number system on the other; (2) students who wish to become business managers, statisticians, or executives, and those who are interested in the execution of the function rather than in the design of it; and (3) students who will terminate formal education with high school graduation or before, and those who will pursue college work. The jobs for which training must be provided include the traditional jobs, newly created technical jobs, and jobs for the future.

To provide adequate materials for all groups, the content of a typical course must include topics that are basic prerequisites for other courses in the business curriculum. Topics from arithmetic and statistics are fundamental, while topics from algebra, geometry, and calculus play important roles in advanced situations. The content of the course should be modern and functional.

With many businesses having their reports prepared on data processing equipment, there is a real need for the training of high school students for occupations in job clusters that involve computers and other electronic devices. Occupational opportunities are increased for the high school student who has developed competency with the computer. The full responsibility for such training does not rest entirely with the business mathematics teacher, but the business mathematics teacher should provide the basic mathematical principles and skills. Since the *on* and *off* position of many electronic computers are represented by *0* and *1*, operations in the binary numeration system become all-important. The base 5 numeration system should be thoroughly learned since many industries use this system for scheduling and coding their five-work-day-per-week transactions.

Basic facts that must be known and understood include counting, adding, and multiplying. The similarity of these operations using base 2 and 5 to operations with the decimal numeration system should be noted. Displays such as that shown below may be of assistance:

For counting

Base 10	Base 2	Base 5
1	1	1
2	10	2
3	11	3
4	100	4
5	101	10
6	110	11
7	111	12
.	.	.
.	.	.
.	.	.
10	1010	20
.	.	.
.	.	.
.	.	.
25	11001	100

A typical text includes such topics as Fundamental Operations with Natural Numbers, Operations with Signed Numbers, Percent in Business, Reporting Business Information, Using Graphs, Simple and Compound Interest, Using Formula and Tables, Data Processing—Punched Cards, Binary Numeration System, Mathematics of Financial Reports, and Mathematics of Insurance.

In the presentation of the materials, modern technology is used. One finds reference to "sets," "sets of natural numbers," "flow charts," "inverse operations," and similar expressions.

In a typical modern business mathematics classroom, students have already expressed their career intent and should have taken a pretest as each unit of work is presented in order to determine areas of weaknesses and strengths. Interest in job classification clusters (e.g., accounting clerk, stenographer-secretary, typist-clerk, general clerk, telephone operator, mail clerk, office machines operator) are some of the areas that are frequently indicated. From any of the job classifications, students may prefer such departments as accounting, data processing, personnel, production, purchasing, receiving and shipping, sales, or general services. Such an arrangement concurs with the report of subjects interviewed for the NOBELS Project.[2]

The results of the pretest and the career intent of the student are factors that should be considered as small class groups are formed and the course content is determined. Knowledge of individual mathematical achievement levels will of necessity lead to remedial teaching for some groups and more advanced teaching for others. The results of the pretest should motivate the student to utilize his strengths and to correct his weaknesses.

The students enrolled in a class and the desired goals to be reached suggest a curriculum and methodology that tend to be varied. This, of course, differs from teaching techniques of former years. Present teaching should involve drill in fundamental operations and problem solving with emphasis on actual problems encountered in job clusters. These are based on the many numerical situations that occur in the modern business office and the everyday lives of citizens as consumers.

The various departments associated with job classification clusters all involve the rudiments of mathematics. For example, persons employed in departments such as data processing, purchasing, receiving and shipping, and the general services must be competent with elementary mathematical skills. Persons involved in departments such as accounting, purchasing, production, sales, and general services should be skilled in determining interest and discounts and in using formulas and equations. To be really meaningful, however, material for any of the job classifications must be correlated with other subjects. Problems related to bookkeeping, office management, consumer education, and selling can do much toward making a course relevant.

Computations should be performed with a calculator, but procedures for manual solutions must be clearly understood. As a means of motivating and for greater understanding of the steps involved in problem solution, flow charts should be used. Detailed directions for using the calculator for any fundamental operation is a beginning point. These directions should be made and retained by the student for use whenever needed. An analysis of the flow-charting technique helps to arrive at problem solutions and develops concepts needed in solving many types of data processing problems. Begin with a step-by-step analysis of what it takes to get a job done.

Although the flow chart is chiefly a diagramatic presentation of steps used in performing an operation, the development of logical approaches is an additional advantage obtained by its use. To stimulate the use and the formation of flow charts, several may be displayed in a classroom. The class may also develop flow charts cooperatively.

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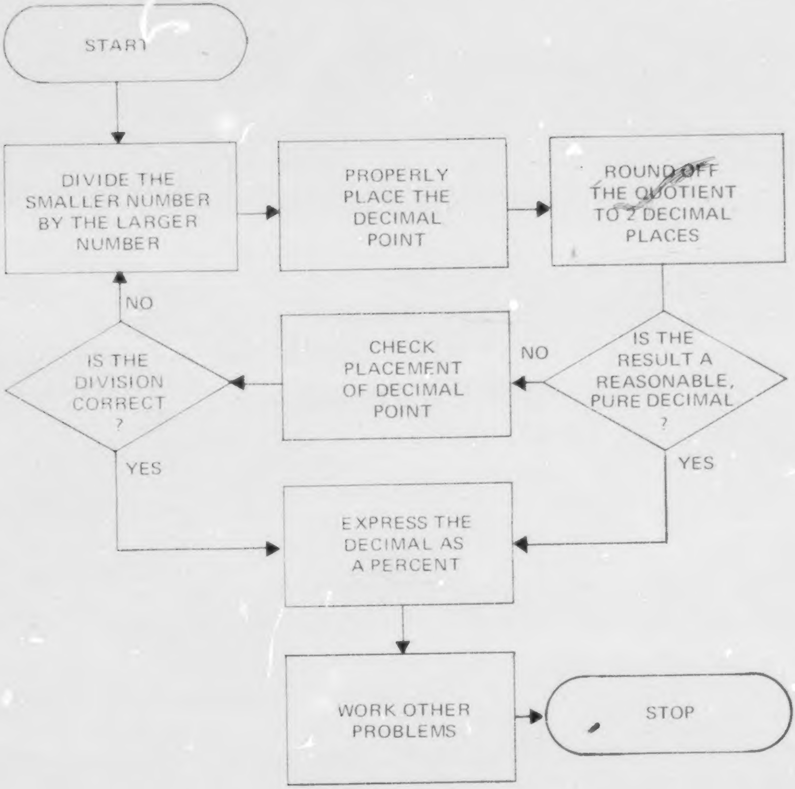
[2] Lanham, Frank W. *Development of Performance Goals for a New Office and Business Education Learnings System.* Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1970.

A typical flow chart on finding what percent one number is of a larger number could be as follows:


START
DIVIDE THE SMALLER NUMBER BY THE LARGER NUMBER
PROPERLY PLACE THE DECIMAL POINT
ROUND OFF THE QUOTIENT TO 2 DECIMAL PLACES
IS THE RESULT A REASONABLE, PURE DECIMAL ?
NO
CHECK PLACEMENT OF DECIMAL POINT
IS THE DIVISION CORRECT ?
NO
YES
YES
EXPRESS THE DECIMAL AS A PERCENT
WORK OTHER PROBLEMS
STOP

With any level of work, attention must be given to two of the three "fundamentals" of office task performance.

> Accuracy as a desired generalized behavior of office workers is a function of checking for potential error and of correcting error.
>
> Organizing and classifying of both numerical and verbal data—all symbolic data—are even more necessary behaviors in our emerging electronic technology than ever before.[3]

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[3] *Ibid.*, p. 291.

USES OF INSTRUCTIONAL MEDIA

Programmed instruction presents instruction in logical, sequential order, and after many years, some outstanding programs are now available. They are worthy of a close look by any instructor who encounters students hampered by a lack of motivation. Materials are presented in short orderly steps, and students are able to check their own responses immediately. This gives them a sense of responsibility, for they soon realize that this is learning on an individual basis, that they are competing only with themselves and need not be concerned at this point about how they compare with their classmates. In this way, students are increasingly responsible for their own learning and thus are more active participants in the acquisition of the skill.

Adding machines and calculators are a must in the functional business mathematics class; they add realism, save time, and provide a quick means of checking which is so vital to all computations. It is essential that students be made to realize that the machine is a tool, but it is they who must do the thinking. When they learn how to compute simple interest and how to read an amortization chart, they should use a calculator rather than waste time with pencil computations.

Tapes, motion pictures, the overhead projector, field trips, films, and many other devices can be put to good use. A resourceful teacher who secures sales tickets, route slips, checks from accounting practice sets, time cards, light and water bills from local firms, and similar items adds meaning to the job tasks his students perform. A student using these materials in a job cluster acquires a working knowledge of their importance and of the far-reaching consequences of any inaccuracies that carelessness on his part might incur. The use of such materials also provides the student with practical opportunities to follow written instructions and to make decisions.

Modern textbooks offer a wealth of good material. Most of the texts include ample background information for understanding problems as well as illustrative examples that teach conceptual relationships. Ample drills are given to ensure retention and maintenance of skills. Speed, accuracy, and neatness are stressed. Many suggestions are given the teacher on how to apply fundamental operations to actual business transactions. The presentation of new operations in mental arithmetic is adequately covered. The findings of research have been utilized in their application to concepts of how learning takes place in that limits of achievement are not arbitrarily set for all students. Minimum standards are set for all, while further learning experiences for extensive work are provided for the more able student. The common sense factor of a solution with emphasis on its consumer utility is stressed in most modern texts.

EVALUATION OF THE LEARNINGS

The success of any course is determined by how well students are able to perform as a result of having taken it. Systematic evaluation provides a continuous feedback of information to the teacher and to the pupil. Evaluation is the principal means of improving instruction and learning. Its effectiveness and power are not based in punishment or reward, approval or disapproval, but in telling the teacher how well he has performed the teaching process and telling the students to what extent he has mastered the skills and knowledge. Effective instruction involves a continuing process of teaching, testing, evaluating, reteaching, retesting, and reevaluating.

Because of newer techniques, newer methods, and revised course content, evaluation in business mathematics is more essential than ever before. Newer methods must be tested by research and the results measured and used as a basis for continued revision. The world of work demands greater mathematical accuracy of high school graduates. Through the data collected, wise decisions can be made about our behavioral objectives and the experiences we have provided for effective learning. Feedback is an important factor in learning, and it is only by utilizing the feedback from these experiences that they have meaning for the teacher and the student.

The attitude of expectation held for students has an effect on their success or failure. If, the teacher's manner and personal style demonstrates to the students that they are special and capable and that the teacher expects improved performance, then the teacher is likely to get greater skills mastery. Greater intellectual expectations on a teacher's part stimulates greater intellectual growth on the students' part. The results of evaluation are the road signs. They tell both teacher and student whether they are going in the right direction.

TEACHER EDUCATION

No method or device takes the place of a vital, well-trained teacher who is interested in his students, anxious to see them succeed, and willing to spend the time to see that they do. While state departments of education and teacher education institutions set specific requirements, there are some that one must set for himself.

One commitment is to keep abreast of the changes in methodology. As a part of continual professional growth, attend workshops in business and in mathematics. Take a course in educational research at the local university, and conduct research with your students, an excellent means of upgrading the quality of one's teaching. Seek research assistance from both the mathematics and business education supervisors, and share the findings with other business departments in the school system. Study the findings of other research projects and incorporate some of their relevant findings into the business mathematics course. The time was never more right for research as we delve more into the nature of how children learn. Our age of technology is based on research, and all teachers must make a contribution.

Go into the office of a business in the community and work during the summer. At firsthand see, learn, and carry back to the classroom the needs of local businessmen by incorporating them into learning units for the students.

THE FUTURE

The future of a separate course in business mathematics or its inclusion into bookkeeping or general business is important only in terms of the future needs of a community. Only a local administration can determine this, using available and future employment projections as a basis.

Business mathematics has an important place in the business curriculum. It is the basis upon which the technician refines his skill. It is the basis upon which his success depends. If properly taught, business mathematics will maintain this valued position.

Today's youth are frustrated and bored by traditional instruction. Only by widening the scope of our instruction, by electing an instructional program designed as a total entity where students can be included in what shall be taught, can teachers instill in them a sense of responsibility for continual self-learning. It is student and teacher working together to reach a desired level of proficiency. Give greater relevancy to the time students and teachers spend together. Be accountable to each other.

As previously stated, teach and prepare students for current employment as well as for jobs that do not exist and whose nature we cannot imagine. With the mobility enjoyed by American citizens today, it is very likely that the students as graduates will remain in their community for only a short time. Families go where jobs are available. Teachers, then, must prepare students who must compete in business nationally rather than locally.

Being very selective, be informed about and experiment with the findings of research. This is a valued way to enhance teaching. With emphasis on behavioral objectives, it is hoped that the methods and techniques used will give students the insight required to learn systematically any given task that involves business mathematics.

Section IV

ORGANIZATIONAL PLANS

CHAPTER 16

Cooperative Education

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In the past decade the prosperous, violent, mobile, and uninhibited sixties — Cooperative Office Education (COE) has developed and expanded at a fantastic rate. Less than half of the states had initiated COE programs before the passage of the Vocational Education Act of 1963. At the close of the 1969-70 school year, 43 of the 46 states reporting had COE programs in operation. Through Part G of the 1968 Amendments, the plan will undoubtedly enjoy even greater growth. One can no longer look at COE as being new, and the challenge today is to become more knowledgeable in developing and maintaining quality programs with a sympathetic ear tuned to the needs of the new school population.

The cooperative office education plan is designed for senior students who have specific vocational career objectives. Through a cooperative arrangement between the school and business employers, the student spends a part of the day in school and a part in a business office (training station) where he is paid a beginner's pay. He is supervised by the teacher-coordinator from the school and by a job sponsor from the business where he is training. Frequent visits are made by the coordinator to the cooperating business to evaluate and improve the quality and scope of the student's occupational experience. Two units of course credit are usually given for successful classroom and job performance.

The COE student receives instruction while he is in school that includes required academic courses, related vocational courses, and a related class which is usually taught by the teacher-coordinator. In most states the enrollment in this class includes only COE students. The class activities are closely related to the student's job and to those skills which will increase his employability. The remaining part of the day is spent in the training station in a business office where the student spends an average of 15 hours a week on the job.

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The increased importance of occupational experience in education has been recognized, and today COE helps to provide closer liaison and cooperation between the school and the world of work. It provides for continuous contacts with businessmen whereby the school is made aware of new and different procedures and equipment used in today's business offices.

These contacts with the business community and businessmen enable the teacher-coordinator to offer more meaningful classroom instruction in the related class as well as in other business classes. They also provide a continuous feedback for evaluation of the instruction received in school by the student. The experiences which the students have on the job become a part of the related class instruction.

In an attempt to obtain information on the status of COE programs in secondary schools in the United States, a questionnaire was sent to all state supervisors of business and office education. Forty-six of the state supervisors responded and this information revealed that there were 450 programs established prior to 1963, with 2,321 programs in operation by the 1969-70 school year, and 365 programs planned for the 1970-71 school year.

This indicates that initiating new COE programs may be somewhat "old hat" in many states. However, one great change in initiating today's new programs in contrast to those in the past is that Part G of the 1968 Amendments authorizes funds to be used for this purpose. There is time for more adequate planning than in the past when programs sprang up almost overnight. There is time for surveys to determine the needs of the student and of the businessmen in the area served by the school. Greater care can be used in selecting the teacher-coordinator. Money is available for equipment and supplies.

Part G of the 1968 Amendments states, "It is the purpose of this part to assist the state to expand cooperative work-study programs by providing financial assistance for personnel to coordinate such programs, and to provide instruction related to the work experience. . . . " The number of programs planned for 1970 gives indication that the purpose of Part G of 1968 Amendments is being carried out. This gives promise that this decade the "people-orientated" or "human-power" seventies will show explosive growth in COE!

INITIATING A NEW COE PROGRAM

Perhaps one of the greatest changes in initiating a program today is the involvement of advisory committees in the development and establishment of the initial activities. It is estimated that over 100,000 business and industry leaders throughout the United States are voluntarily serving on some 20,000 advisory committees established by secondary and postsecondary schools to assist in the development of vocational and technical education programs. The new state advisory councils on vocational education (required by P.L. 90-576) are being viewed as the basis for ushering in a new era of cooperation between industry and education at all levels—national, state, and local.

The first step in initiating a new COE program should be contacting the vocational education department of the state department of education for assistance and information. With this information, the next steps should be the school and community surveys. In the past this was usually done by an interested teacher appointed by the school administrators. Today this person has the active support and encouragement of his school administrators, the state department of education, and the local advisory or steering committee.

Once student need for the program is determined by contacts from assemblies, homerooms, and classes, the community survey should be conducted to obtain the occupational justification for the program. Although employers may look favorably upon the program, the potential of the firms in the community for furnishing training stations with adequate occupational experiences should be determined.

The *student* survey should provide data on the interest of students and parents, on career objectives of students, on the training needed for the career objectives, and on necessary scheduling of classes. The *community* survey should introduce the program to the businessmen and provide data on types of businesses, on the number of employees in a business, on turnover rates, on wage information, on types of entrance tests used, and on types of business machines and equipment used.

The development and success of the COE program is largely dependent upon locating, identifying, and developing good training stations. This is true with an established program as well as the new program. This coordination technique has been greatly improved for today's programs by the tremendous help received from advisory committees, participating businessmen, and the provision of sponsor training programs.

The business establishments used as training stations should provide a variety of experiences and training for students that will prepare them for business and office occupations. They should be selected for the quality of planned educational experiences they can provide. The on-the-job occupational experience should be related to the students' interests, aptitudes, and career objectives. The supervisor in the training station should be interested and willing to assist the student in developing those business traits and attitudes considered essential to vocational competency. Ideally, the cooperative process should be understood and accepted by all full-time office workers in the business in order to promote good work attitudes and better educational experiences for the student.

The employer or someone designated to supervise the student must provide time for conferences with the school representative to plan, evaluate, and discuss the student's progress and training plans. Information which will help the teacher-coordinator determine the suitability of prospective training stations may be secured from community surveys, advisory committees, and interviews with managers or the person directly responsible for the supervision of office personnel.

Facilities and equipment. The facilities for COE in the school may consist of only one related classroom where other business subjects are taught or it may involve several fully-equipped rooms or laboratories where employment skills are taught. If better facilities are not available, the program may be set up in a large business classroom where the students meet for formal class instruction, with a machine room available for training stations or for rotation on different machines or programmed learning. Since the students will have the benefits of training in a real office, most schools that have had a vocational program would not have to spend large sums for equipment. Although it might be highly desirable for the related room to be used by one teacher-coordinator because of the equipment and facilities, it is not realistic to use the room only a small portion of the school day.

If the room is to be used every period, it is important that adequate storage be provided and organized in such a manner as to present a businesslike atmosphere with ample room for students and teacher to work without being crowded. A combination office-conference room should be available for individual student-teacher-coordinator conferences. The coordinator should have a telephone available for his immediate use at all hours of the day.

The kind of equipment used in the offices in the community should be given some consideration before buying equipment to be used in school. Equipment that would be used for a long period of time should be bought rather than rented, but this would not be true for data processing equipment or machines that become obsolete in a short time. Machines that require a short learning time should be purchased only after the more essential equipment has been obtained.

Advisory committee. Although no special requirements are included in P.L. 90-576 for the establishment of local advisory committees, the legislation does point out the need for industry-education cooperation at the local level. The section of the new law which deals with cooperative programs, Part G, Section 173 (a), does require that a state plan include policies and procedures to be used in establishing cooperative work-study programs through *local* educational agencies with the participation of public and private employers. The law also requires that the policies and procedures must give assurance that necessary procedures are established for cooperation with employment agencies, labor groups, employers, and other community agencies in identifying suitable jobs for persons who enroll in cooperative work-study programs.

Hopefully, these references should add prestige to local committees, but the starting point for developing more effective committees is from the state level. Thirty-six of the 46 states responding to the questionnaire have local advisory committees. Two states reported having many committees, two reported some committees, four did not give this information, and only two states reported no advisory committees for COE on the local level.

Reports on the advantages and assistance received from active local advisory committees for COE programs in both urban and rural areas would lead one to believe that a program cannot achieve its greatest effectiveness without the assistance of the local committee. Successful coordinators consider the committee as a keystone to the success of their programs and believe that many of the problems and concerns of the program would very likely never occur if active committees were available.

In the New Orleans school system where a large percentage of the students are from minority groups, each member of the advisory committee assists the teacher-coordinator to establish new training stations by personally contacting five prospective employers. They often accompany the teacher-coordinator on the initial visit to this employer.

In this same school system, the president of a large industry frequently hosts a luncheon during the month of August for presidents of other firms throughout the city. This is an informal luncheon where the teacher-coordinator and the businessmen sit down together. Following the luncheon a successful COE graduate, an employer of the firm in which the student trained, the chairman of the advisory council, and supervisory school personnel give their reactions to the program. This has been a very effective device—businessmen talking to businessmen about a successful and meritable program and soliciting the participation of other businessmen—a great change from the days when coordinators spent weeks and weeks contacting these businessmen!

The type of advisory committee used should fit the particular community which it serves, but some kind of local committee is vital to the success of a new program and to the effective progress of an established one. The committee can assist the school with the students' recruitment, placement, and follow-up. Assistance can be provided for the teacher-coordinator in numerous ways—evaluation, development of course content, training programs, equipment, field trips, etc.; however the greatest assistance would likely be in the area of public relations. The *student* receives assistance in the form of scholarships, recognition, and further training.

The American way of representative action is characterized by these committees; therefore, those people in education who are responsible for meeting the needs of the students and the businesses in which they train must be knowledgeable in initiating and working with the local advisory councils.

SELECTING THE COORDINATOR

The coordinator should be the strongest link between the school and community, and the success of the program depends upon his successful public relations. He needs business experience that will provide skill for making direct contact with the business world so that he may continue selling his program to businessmen, faculties, students, parents, and school administrators.

He should be a successful business teacher who is venturesome enough to leave the four walls of the classroom and try new teaching methods and procedures for students who will be employed in the changing business world. He needs to be competent in using individualized instruction, in assessing individual strengths and weaknesses, and in presenting and preparing individual instruction for employment opportunities.

The coordinator must have the personal qualities that will earn the confidence of the people with whom he works—one with a great interest in school, business, and community activities. He must possess the mental and physical abilities necessary to carry out the numerous duties the program requires, as it is not uncommon for coordinators to be called at any time of the day, even at night, to listen and counsel with students who have difficult problems.

Because of this extra work with the same pay rate, many excellent, experienced teachers have hesitated to leave the classroom. As a result, the position is often filled by the young and inexperienced teacher. Recent trends have been toward paying coordinators for 10 or 12 months. Thirty states reported at least one month's extended pay. Perhaps a higher pay scale than that of a classroom teacher would be a more realistic approach if the position is to attract and hold a desirable, dynamic, and qualified person.

The coordinator should be familiar with all laws and regulations that pertain to the employment of minors, for it is his responsibility to keep the employers informed. A complete file should be maintained on the publications regarding these laws so that he can be sure the employers have the information they need to understand their obligations to the student. Determining whether or not a business comes under the provision of the law should be left to the employer or personnel of the United States Department of Labor.

Today's requirement for a teacher-coordinator is more than being a good classroom teacher. Above all, this person must have a keen desire to help people and a willingness to become involved with students by providing a great deal of care and attention.

COORDINATION TECHNIQUES

Coordination has been defined as the performance of those activities that create between the school and the training firm a harmonious relationship resulting in an effective learning experience for the trainee. This would include all activities involved with the community, school, and parents that contribute to the effectiveness of the program with the exception of the actual teaching of the related class.

One of the *major* coordination functions would be locating, selecting, and improving training stations or business firms that provide desirable occupational experiences. The following items should be used as criteria in selecting training stations:

1. A good reputation through ethical business practices.
2. Occupational experiences that require both skills and knowledge that are related to the student's career objectives.
3. A training sponsor interested in assisting in the training and teaching of the student.
4. A sufficient number of working hours (three hours a day or an average of 15 hours a week).
5. Accessible travel time between school and training station.
6. Willingness to pay students the prevailing wage for a beginning worker.
7. Adequate facilities and equipment.
8. A time provision for conferences with teacher-coordinator to plan, evaluate, and discuss the student's training plan, experiences, progress, and problems.

Information which will help the teacher-coordinator locate training stations may be secured from community surveys, student surveys, advisory committees, trade associations, chambers of commerce, yellow pages of the telephone directories, and interviews with employees. However, if the on-the-job sponsor is to fill the position of a true partner in providing meaningful occupational experiences for the student, then the on-the-job training must be more than just a job with high school credits. Just as the coordinator continues to improve the instruction in the related class, he should continue to assist with the improvement of the occupational experience instruction received on the job.

In order to promote this improvement some coordinators develop a sponsor training program. This provides for integration of the values of the cooperative program with those of the employer and results in a closer curriculum tie-in. Student supervision on the job improves in relation to the teaching ability of the on-the-job sponsor. Suggestions for developing a sponsor training program are listed below:

I. Contact all managers in person to explain the purpose of the sponsor training program.
    A. Present benefits of program for both business and school.
    B. Explain program to student's training sponsor at luncheon meeting.
    C. Send report of above meeting to manager and a copy to student's sponsor.

II. Plan a group meeting hosted by the school for sponsors, students, school administrators, parents, and a representative from the state department of education.
    A. Present advantages of the sponsor training program.
    B. Give responsibilities of school, students, parents, and sponsors.
    C. Elect officers.

D. Explain objectives of the sponsor training program.
E. Familiarize sponsors with the instruction in related class.
F. Make recommendations for improvement of sponsor training program.
G. Secure suggestions for future meetings.

III. Set up a calendar for the year.

The training station should be the downtown laboratory and the on-the-job training sponsor has definite responsibilities for teaching the student. He needs to know what is being taught in the related class. By working closely with the coordinator through the sponsor training program he can know enough about his student to communicate and assist more effectively with the student's career objective. More accurate information can be given to the coordinator who in turn can teach the specific job skills needed at that time on the job. This program should be used as an instrument to promote greater occupational competencies for the student as the coordinator and sponsor strive to teach values in human relations, business ethics, specific job skills, technical information, and to develop judgment and responsibility.

The sponsor should be included in club activities, in the development of job analysis, and in step-by-step training plans. He should be informed of the school policies regarding special events and regulations and should feel free to make suggestions regarding additional training.

It is the coordinator's responsibility to develop the sponsor training program for the school year. Improvement in the quality of COE programs should be greatly accelerated as the employer understands more fully how his role and function can make the program more meaningful to the student.

A second important coordination function is the recruitment, selection, placement, and evaluation of students. Many sources can be used for recruiting prospective students for the program, but the final selection of the student should be left to the coordinator. With the help of business teachers, counselors, other faculty members, school administrators, businessmen, and parents, the coordinator should select the students who are to receive the time, money, and energy of an outside agency in the training station.

In the past, this selection has sometimes been delegated to the principal or those responsible for scheduling. Since the coordinator is responsible for the success of the program, he must select the student whose strengths and weaknesses he must assess and place in a training station providing occupational experiences.

The coordinator then must establish his criteria for selection and enroll those who meet these requirements. This criteria should be based upon the collection of information from many sources: tests, interviews, teachers, businessmen, advisory committees, parents, students' scholastic records, career objectives, attendance, health, interests, skills, abilities, job requirements, and course prerequisites. Some coordinators feel that when possible it is good to begin contacting students as early as their freshman year.

The COE student should have an average level of intelligence and ability in order to benefit from and succeed in the program, but his academic record does not necessarily indicate these characteristics. In the early years, and this is true in some programs today, the student had to have a "B" or "C" average to be accepted. Today, as teachers become more skillful in working with the disadvantaged, it is apparent that many students make poor grades because they are bored, frustrated, and ignored in school, or perhaps just do not take to our college-oriented educational system.

Twenty-six state supervisors indicated that the majority of students accepted for COE programs ranked academically in the third and fourth quartile of the class. It is likely that in the future more students will be accepted from the second and even the first quartile since top priority for the disadvantaged has been forcefully expressed in the Vocational Amendments of 1968. Coordinators should take an active interest in and accept the challenge of educating the underprivileged.

Some changes in the selection of students are taking place today as coordinators learn to work more effectively with these students who are unfamiliar with the world of work. Five states reported that the majority of their students are selected from the second quartile of the academic class rank. By the use of simulation and other innovative methods in the classroom, the student who is embarrassed by his low academic achievement loses his fear of his lack of experience. The challenge will be great in the seventies to construct COE programs to include some of these disadvantaged for training in a defined skill with job opportunity at lower levels of office work. Each coordinator must develop his own criteria and philosophy for selection of students in the school. The program is dependent upon the outside agency to accept the student, so he must be capable of contributing to the business as well as benefiting from the occupational training.

A third function of the competent coordinator is to organize and maintain a planned and continuing program of information services and public relations. This includes all of the various means of communication among school, students, parents, teachers, and the community served. Attitudes and actions shown by the coordinator continually tell the worth of the program. Through his skill in public relations, many avenues of communication are provided for continued support and cooperation in strengthening the COE program.

Activities by which the student can be reached are limited only by the coordinator's creativity: assemblies, posters, COE emblems, COE jackets, bulletin boards, speeches by businessmen and COE students, parties, open house, career day, etc., are a few.

Parents should be informed and involved by career day, open house, information forms, and brochures. Because of busy schedules, home visits have not always been possible, but with extended employment today's coordinators are securing greater support from the parents by this means. The vocational plans and problems of every student warrants an interview either at school or in the student's home.

News releases of newsworthy information should be sent to the school paper, major newspapers, to business and civic organizations that publish newsletters, Jaycee newsletters, National Association of Accountants, and Chambers of Commerce. "COE Day" in advertising is used with business firms using the pictures of COE students in their advertisements. Spot announcements on radio and TV to tell the story of COE are used during the summer months. The supervisor's office telephone is given for those business firms who want more information. These spot announcements are made by school administrators, businessmen, and COE students.

Employer appreciation activities of recognition and honor reach a large public. The most popular activities are luncheons, banquets, breakfasts, teas, and open houses. Programs should be used which include a list of the participating firms. This list can then serve as an effective device when calling upon prospective new firms who like to know of other participating firms.

Youth club speakers from the business community foster communitywide recognition. An open invitation to participating firms to visit the department provides a link with the public. Advisory committee members and other businessmen serve as advisers and aides for the youth club.

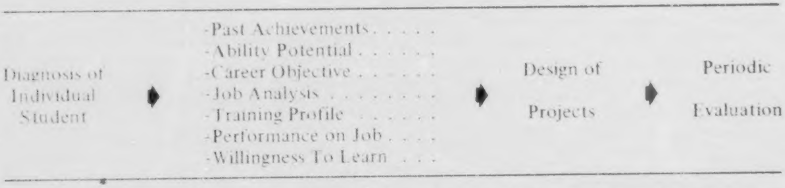
Developing and using effective records and reports build COE relations based upon facts. A successful coordinator cooperates by accurately processing all forms for federal, state, and local reports. He develops and maintains forms for information needed for these reports and for program development and research.

THE RELATED INSTRUCTION

The purpose of the instruction for COE is to assist the students in developing desirable working skills, knowledges, and attitudes for success on a real job or to "give practice for actual practice." The content of the curriculum for the related class must include a great variety of instructional materials in order to provide for the needs of students with great variance in ability. As coordinators try to include more of the disadvantaged and students from the minority groups in the program, these differences in ability levels will increase. This presents a difficult task for experienced coordinators who have not had training in individual instruction techniques and development of materials. The temptation could be great for coordinators to take the route of least resistance in coping with instructional responsibilities in the classroom by using only the ready-made structure provided by a textbook.

This is not the case with an effective coordinator who knows that he must serve the needs of each student. Even though there are great differences in ability levels, motivation is usually very high as the student begins to build a bridge to the world of work. For this reason the COE plan of teaching is most rewarding and challenging, and a close relationship usually exists between the coordinator and the students. One of the most important factors contributing to the success of the program is how effectively the coordinator can provide, promote, and maintain quality instruction in the job-training station, the related class in school, the supplementary instruction, and the preco-op period.

A flow chart developed by Elaine Uthe, Michigan State University, effectively presents a process for designing the related instruction for one student which would need to be repeated for each student in the class. The chart is illustrated below.


Diagnosis of Individual Student
-Past Achievements . . . . .
-Ability Potential . . . . . .
-Career Objective . . . . . .
-Job Analysis . . . .
-Training Profile . . . . . .
-Performance on Job . . . .
-Willingness To Learn . . .
Design of Projects
Periodic Evaluation

As the flow chart indicates, the coordinator is the partner who must take the initiative and major responsibility of determining the instructional methods to be used to provide three kinds of learning: (1) that needed by all students, (2) that needed by certain groups of students, and (3) that needed by individual students.

Instruction in the related class. The related class instruction is taught almost without exception by the coordinator who supervises the students on the job. In the past, only COE students were enrolled in this class. Today we find some departure from this pattern of the past decade as the coordinator works with block-time programs which serve both the co-op student and other vocational business students.

One of the first duties of the coordinator after the students have been selected for the program is pretesting in order to assess the students' strengths, weaknesses, skills, abilities, knowledges, past achievements, interests, and career objectives. This should be determined by interviews with students, parents, teachers, counselors, principals, and the use of various tests including teacher-made tests. In this way the coordinator can determine what materials will be needed for all students, what will be needed for groups of students, and what will be needed for individual students. Then he must determine how, when, and in what sequence these instructional materials will be used. Broadly speaking, it is unlikely that this method is being used widely by the majority of coordinators today. This is probably true because the coordinators are not skilled in the technique of individualized instruction and the release-time is not adequate to provide time for the development and selection of instructional materials.

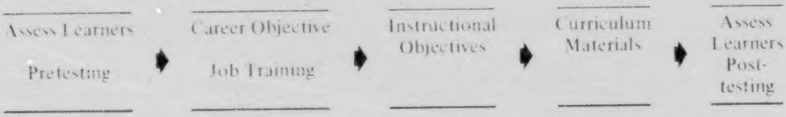
Instruction during extended employment. With the extended month's employment which almost all states are now providing, coordinators in the future should have time to develop skills in the diagnosis of the individual students to improve the quality of instruction in the related class. For the past four years, coordinators in Louisiana have provided preco-op intensive training for four hours a day during June or August. In one of the larger systems, all the COE students are brought together in one school with the 10 coordinators working to provide more effective training. At the end of the first week, the students meet at a local hotel where they are provided a day of orientation to the business world.

Because of the effectiveness of this four weeks of intensive training, more disadvantaged students have been included in the COE program in this city. It has been a real breakthrough for these students in job opportunities. There is time for remedial instruction in the traditional general education in the area of computation and communications skills which are essential for today's world of work. The aural-oral communication approach is used to give the students a second language to use in the business world. Simulation based upon the tasks and activities in the individual training station has been used during the intensive training in some of the programs during the past year to prepare students for their first weeks on the job. This also provides experiences the student would not get in the training station. Employers have come to view COE as a total program, and the plan for training in the office has improved at the same rate that the training has improved in the related class.

Individualized instruction. Individualized prescribed instruction is being used widely by teachers today as research has directed learning away from the large classroom instruction with everyone studying and expected to learn the same materials at the same time and at the same pace. The busy coordinator knows that the student must have at least the elementary skill for beginning performance in the training station, so for reasons of speed and efficiency he uses individualized instruction. This method sometimes serves as an enrichment where faster or brighter students assist the coordinator by helping the slower student, thus providing more individual attention for the slower student and a sense of responsibility and assurance for the faster one.

The related class lends itself to individual instruction perhaps more than others. For many years the student has worked individually on business machines with assistance from the coordinator and the instruction sheet. In this class where students should progress through logical order according to their individualized plan based upon the training plan for the training station and the career objectives, a large part of the instruction must be individually prescribed. This approach encourages the student to accept responsibility for his own pace on materials suited to his own needs with standards based upon his objectives and goals.

After pretesting, it is the coordinator's task to select or develop the instructional materials which will bring about the desired changes or improvements for the student to attain his instructional objectives. With the vast number of materials for selection programmed text materials, texts, tapes, brochures, manuals, and films coordinators should not overlook another important source: the student, his training station, and his sponsor. Then he must choose the procedures and methods to be used with these curriculum materials in order to achieve the instructional objectives and the evaluation techniques to determine whether they have been learned. This is illustrated below:



If the posttesting shows the student has not accomplished his instructional objectives, then plans must be made for remedial or relearning materials.

Developing or selecting reasonable instructional objectives is difficult and time consuming, but it should be the key to the selection of curriculum. These three questions should be helpful:

1. What is it that we must teach?
2. How will we know when we have taught it?
3. What materials and procedures will work best to teach what we wish to teach?

Since this is such a time-consuming task, coordinators should be kept abreast of materials developed by the U.S. Office of Education and by many states which they may find relevant to their instructional program. It is to be hoped that perhaps in the future there might be developed an exchange for this purpose similar to the Center for the Study of Evaluation at the University of California in Los Angeles.

The job of the coordinator is not made easier by individualized instruction for he must be aware of the progress of all students at all times. The symptoms of learning difficulty must be recognized so that assistance can be given to the student before he "bogs down." The work will be more demanding, but more satisfying since the student is provided with relevant training for immediate needs.

Other instructional methods. Those learnings needed by all students may be taught by a wide variety of teaching methods such as lectures, speakers, class discussions, demonstrations, reports, and field trips. The instruction is presented to the entire class at the same time. A minimum of time is used with uninterrupted concentration on one activity. This method could be used for teaching filing theory, typing problems, consumer credit, labor organizations, grooming, and orientation.

These are traditional methods that sometimes become too much teacher-oriented and too formal, but if properly used they do have many advantages. Lectures may promote a stimulating class discussion or typewritten reports. Speakers may be invited for a specific subject which is needed by all students. This again promotes class discussion, as they decide before the speaker is contacted what they would like included and which questions they would like to have answered. "No foolish questions, only foolish answers" is not necessarily so! The speaker's presentation should be followed by the class discussion as the students clarify relevant information which they have gained.

Demonstrations could be used as an appealing vehicle for informal role-playing activities. They could be used to teach telephone techniques needed to handle displeased callers, how to handle irritated office callers, and how to make use of other effective human-relation skills. Reports could be used as a means of improving communication skills and improving listening habits of the group.

Well-planned field trips may be used to contribute to the student's knowledge and understanding of the working world. They should not be used to observe carpets and the latest furniture, but to observe certain activities with objectives and goals determined before the trip and followed by an evaluation.

The unit or project method may be built around subject matter or integrated tasks using the combination of different skills. This should contain subject matter which has direct application to the occupational experiences of the student.

The rotation plan may be used for teaching the use of machines or other units of instruction. Students may work individually or in groups on related work and move at a scheduled time to another unit.

Coordinators should not overlook the use of other teachers or departments in the school for help in the related class. A student could be assigned to a business arithmetic class for two or three classes if he needs this training, or he could be assigned to a speech class for help in oral communication.

To assist the students in orientation to the pre-employment testing which they must face before placement in a training station, the coordinator should provide training on employment entrance tests. Unfortunately, employers often will not accept a student who cannot pass the employment test given full-time employees. Without training for these routine tests, many able candidates might be screened out.

Instruction in the training station. The training station, often defined as the downtown lab, provides an opportunity for the student to practice on the job what he has learned in the morning in school instruction correlated with instruction on the job. The student can apply the related class instruction to his own job and check to see if it really applies. If it does not apply, coordinators should encourage students to find out why. The student should be taught to ask questions at the appropriate time.

When machines are taught in class the student should inform the class how they are used on his job and why they are used that way. Students should be prompted to be curious about how things are done in the office and why a particular method is used. He may use role-playing to tell and show other students how things are done in his training station.

The COE student should keep a job notebook giving all activities in which he participates in the training station. Often more complete information can be secured from this source than that obtained from the sponsor. It can be as simple as the tasks he performs daily, weekly, monthly, and occasionally. This information can be helpful for job analysis, training plans, individualized plans, and for simulation. After a few years this notebook can be very inclusive as it is brought up to date each year by a different student.

The student should be encouraged to collect and study company manuals, brochures, company history, stationery, and if possible, samples of completed forms, correspondence, etc. This collection can be of great benefit for training another student during the preco-op period the following year.

If the training station is located in a firm that provides in-service training for its employees, requests should be made for the student to be a part of this training. Perhaps a student from another training station could also be included. If the firm where the student is training does not have in-service programs, perhaps office suppliers used by the firm offer a training course on new equipment from which the student could benefit.

The current student file which the coordinator provides the sponsor promotes better understanding of the student and therefore better instruction. The evaluation form permits the sponsor to assess and inform the coordinator of the student's progress and performance.

The training plan developed jointly by coordinator, employer, student, and parent serves as a guide and reminder of the instructional responsibilities of the sponsor. A copy of this plan should be kept by all four to be used as a guide for training and evaluation. The training plan should include at least the following information:

1. Identification of student, school, employer, and training sponsor
2. Career objective of student
3. Information on dates of training, rate of pay, hours to be worked, and plans for coordinator's visits
4. Basic skills, attitudes, and knowledges needed for the job
5. Responsibilities of student, parent, training station, and coordinator
6. Outline of activities, experiences, and training to be provided by the training station
7. Signatures of student, parent, supervisor, and coordinator.

No training station at all is better than a poor one. A "less than good" training station will improve only as the coordinator influences the sponsor to become a real partner in the student's training and assists in developing business skills and attitudes essential for vocational competency. The coordinator should continually strive to improve the instruction and occupational experience in the training station. Through persistent efforts and a time-consuming process, part-time work stations can often be turned into excellent training stations.

The questionnaire which was sent to all states asked that changes in COE methods in the past two years be listed. The following changes were indicated:

Changes	No. of States
Individualized instruction	11
Local advisory committee	10
Block-time instruction	8
Establishing a definite training plan	8
Change from course concept to program	7
Simulation techniques	5
Teaching office concepts	3
Youth clubs	3
Refinement of coordination techniques	3
Better use of business community	2
A junior, double-period, block-time laboratory to feed students into COE	2
Simulation as a prerequisite to COE	2
Disadvantaged included in COE	2
Development of materials to strengthen the related class	2
Application of production rather than textbook competencies	1
Better teacher education	1
Adequate coordination time	1

Despite all the effective changes listed, some leading educators believe that barriers still remain to hinder the growth of quality instruction in many COE programs.

FOLLOW-UP AND EVALUATION

In order to determine what has happened to the product (the student) a plan for follow-up of student graduates must be made for the COE program. The basis for justification of the program is whether the students entered successful employment in the occupational area for which they were prepared. Information secured from the follow-up study of graduates should determine what the program has done for the student and if the product offered to the customer really satisfies.

Programs should be planned from the beginning with built-in means for evaluative activities. Every activity and performance of students, coordinators, and employers should have a plan for evaluation before it takes place. The learning activities must be directly related to the anticipated outcomes or changed behavior of the students. Excellent or poor as the activity or the performance may be, quality control should provide the means for proving the excellence or the guide for inprovement. Evaluation must be a cooperative process with all persons involved in the program participating.

SUMMARY

Progress has been made during the past decade in preparing the student for the world of work. As indicated by the questionnaires returned by the state supervisors, trends are toward using more individualized teaching techniques, simulation methods, block-time programs, and instruction based on systems studies for students as they learn office skills. More recent trends show more coordinators working with local advisory committees made up of businessmen on the level from which action can be taken. Today's coordinator recognizes the value of sponsor training programs for the downtown sponsor which provides cooperative education for occupational competency instead of a part-time placement program.

CHAPTER 17

Simulation

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The telephone rang in the office of a small Utah high school. The caller, who identified himself as the office manager of a small junior college not too many miles away, asked to speak to the business teacher. He was in need of some office help—a well-qualified person who could do everything in the office. There were many local applicants, but this man wanted a girl "like the two girls he hired" from this business teacher's simulation program a year ago. When asked why he preferred the simulation graduates he replied: "Those gals not only had the skills to work in the office, they knew how the office functioned. They didn't have to be told where and what to do."

Two young high school graduates just out of a simulation experience heard of two good secretarial openings in a depressed area in which many experienced secretaries were looking for work. Some 25 people had applied for the two jobs. The two young simulation graduates applied, hiding their fears of a certain turndown. They walked away with both jobs. When asked why they were hired, the personnel director said that these two knew what the company wanted and showed him that they were the ones for the jobs.

A business teacher who had just received the daily absence list was in the process of adjusting her simulation because she noticed one of her key

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simulation students was on the list. Suddenly, in walked this student, pale, and with a fever. She explained that she just couldn't let the office down. After a few moments of serious consulting, the teacher finally convinced the student that an illness as serious as hers should be treated at home, and the student left. The impact of this experience didn't really hit until a few days later when another student's name appeared on the absence list. This student was absent much of the time, but hadn't missed since beginning the simulation. As the teacher was making arrangements for replacements, the student appeared at the door. There was no illness, no legitimate reason for the absence. Her statement was simply that she couldn't miss the simulation because her role was too vital, regardless of what her truant friends said to the contrary.

Among the observations which could be made from these experiences are these:

1. The first employer noticed a significant difference in the performance of the students who had simulation over those who were without this experience.
2. Two inexperienced girls obtained jobs in a field of many experienced job seekers. The reason given was that they showed good job-getting techniques. They seemed to know what they were doing.
3. Students felt that the simulation experience was important and meaningful enough that they made almost superhuman efforts just to get to class.
4. Simulation could be the source of the apparent edge these students felt.

WHY CONSIDER SIMULATION?

Proponents of simulation claim that the effectiveness of a simulation program lies in its use as a culminating capstone course. Simulation can be an effective tool in pulling together the multiple learning experiences for office education students.

A statement of the Policies Commission for Business and Economic Education expresses some interesting concepts for business education. One must read the entire statement in order to get the full effect, but these selected excerpts help to bring the need for the simulation concept firmly into focus:

> Business education is an effective program of occupational instruction for secondary students desiring careers in business. . . .
>
> The occupational program should be related to the needs of business. Therefore, the business curriculum must be flexible and sensitive to changes in business. . . .
>
> Every secondary school should provide opportunities for students to prepare for careers in business. . . .
>
> The sequence of learning experiences should be planned so that the student will achieve his highest occupational competency upon completion of his program. . . .

> Instructional equipment and facilities should be comparable to those found in the businesses where students are likely to be employed. . . .
>
> In-school laboratories that simulate business conditions can be an effective means of providing business education. . . .[1]

Simulation has an answer for each of these concepts in business education.

NONSIMULATION CAPSTONE COURSES

The typical office education curriculum has included stenography and clerical emphasis. A student would enroll in a typewriting course in grade 9 or 10, with a possible second year of typewriting before graduation. Those interested in shorthand would take a one-year course, with the successful student taking a second course.

Many of the students would end their office training at this point and go out on the job. A few would take an office practice course which taught the use of various types of office equipment: calculating machines, electric typewriters, duplicating equipment, and various other machines that happened to be available. The teacher combined these machines with the basics in filing, job application, check writing, personality development, and other necessary units of instruction. The finished product was a student who had learned the office skills.

Many of these students were completely capable of handling good office jobs, but the cry came that these people would be even better prepared if they had some office experience. This was not a new cry, since distributive education co-op programs have been written about since 1914[2] and office education co-op programs at least since the late 1940's.[3]

The 1960's produced many changes in this curriculum. The Vocational Education Act of 1963 provided vocational funds for office occupations. Research and development then began in earnest. State departments of education began placing funds in schools for new programs and equipment. Administrators saw the value of such activities, and they were able to move forward when they had this kind of financial assistance. Schools began allowing two periods of time for office occupations classes, and much related learning was accomplished. Simulation, as we know it today, was developed to fit these programs and was introduced as an on-campus work-experience program under simulated office conditions.

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[1] "This We Believe About Business Education In The Secondary School," *Business Education Forum* 25:8-9; October 1970.

[2] Pettit, Donald D., and Wooff, William. *A Selected and Annotated Bibliography Related to Cooperative and Project Methods in Distributive Education.* U.S.O.E. Contract, O.E. 85111. East Lansing: Michigan State University, 1967. p. 4.

[3] Ivins, Wilson H., and Runge, William B. *Work Experience in High School.* New York: The Ronald Press Co., 1951. p. 163.

AN OVERVIEW OF OFFICE EDUCATION SIMULATION

The term "simulation" has been used to describe many different kinds of office education programs. In most instances, students obtain their basic skills prior to entering the program. "Simulation is designed so as to provide real office situations under simulated conditions. Once the student has obtained basic skills, simulation provides the student an opportunity to practice those skills under office conditions. The teacher acts as the supervisor to aid in the learning process. Simulation provides a chance for each student to gain his first office experience in an office but off the job. This makes the entry into the office life a much easier adjustment to make."[4]

Purposes of simulation. There are basically two purposes for simulation: (1) to provide each office occupations student with entry-level skills with which they can obtain an office job and (2) to provide sufficient skills so that each student will be able to keep that office job as long as he desires. Beyond those two basic skills, everything else is secondary.

Simulation explained. The staffs of offices, which high school graduates join after they leave school, operate as teams. The individual office worker must adjust himself to performing an allotted task in accordance with established procedures and in harmony with the wishes and needs of other people and the requirements of other tasks. More than mere willingness is required to make this adjustment. It calls for an appreciation of human relationships created by the office environment and an understanding of the way in which office and other business functions are related to one another.

Simulation is realism. It is possible to describe to a student the personal and functional relationships that are characteristic of business offices. Unfortunately, such a description is in no way the equivalent of actual experience in a real work setting. Life in the school and the classroom is very different from the life in a business concern and students' imaginations seldom can bridge the gap between. Thus, it is one thing to transcribe and type a letter as a class assignment and quite another to transcribe and type a letter dictated by a company executive for transmittal to an important client.

The simulated office is *not* an imaginary construction in which imaginary or symbolic tasks are performed. It is a real organization of students formed under the direction of the teacher that carries on integrated office functions at a level of intensity and in a facility which corresponds very closely to those of a typical business office. In reality, a simulated office *could* be carrying on the work of a real business concern.

Simulation is group learning. Simulation emphasizes group learning. Under this method, the primary relationships are between the several people in the group. They learn together to work successfully together. The teacher is responsible for establishing the learning objective, the overall tasks, the circumstances, and the setting. He then, as it were, steps back to permit the group to act as a team to perform the tasks. There are notable differences in the student's learning situation under this method. Instead of learning a skill to meet some theoretically perceived future need, he learns to meet an immediate and apparent need. The relationship of one skill to the others performed by members of the group tends to be clearly evident, and the learning is thus made more meaningful.

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[4] *MOE Simulation.* Salt Lake City: Utah State Board for Vocational Education, 1970.

As the result of using a succession of office tasks in the learning which occurs in a simulated office, all the members of a group are enabled to grasp the concept of an office as an operating system with its many interrelated parts and functions. This, in fact, is the way in which most office workers learn in real life. The purpose of establishing simulated offices in classrooms is to provide a means of anticipating and accelerating the real-life process. Students who leave high school with an office education background complete with a simulation experience will not only possess the needed office skills, but they also will have already acquired in high degree the attitudes and understandings that make for success in office occupations.

SIMULATION TODAY

Office simulation is unique in many respects. When one looks at simulation facilities, at simulation students, at simulation instructional materials, and even at successful simulation teachers, he can see some of the unique features that surround simulation. The facilities are like those seen in a real office. The students are motivated with a new excitement seldom seen in a conventional classroom. The teacher is more "alive" in the way he prepares and conducts himself in and out of the classroom. The instructional materials are not found in a book, which leads to the interesting absence of an answer book. The overall atmosphere takes on a nonschool feeling of prestige and importance that enhances learning.

The facilities can vary from the very sophisticated office appearance to the not so sophisticated setting with typewriters and tables only. To date, studies have not been made to determine the level of sophistication needed to maximize learning, but the amount of motivation seems to be related to the realism of the setting. The typical simulation facility is equipped with electric typewriters (including proportional spacing machines), electric ten-key adding machines or calculators, a filing cabinet, some dictating and transcribing units, in- and out-baskets, office style furniture, carpeted floors, and telephone systems wherever possible.

THE SIMULATION INSTRUCTIONAL PACKAGE

The simulation instructional material (hereafter called the package) comes in many forms from many sources. The business education publishing companies are now in the process of producing and printing packages that can be put to use in the classroom with a minimum amount of effort. Several states are producing their own packages for specific situations through state departments and university personnel. Many other packages are being developed and used by individual teachers. A teacher may receive a package in any of these ways, but it may help to know the processes which need to be undertaken in order to get a package in operation. The following section discusses these processes in some detail.

SIMULATION CONCEPTS

Concept 1. Simulation must simulate something. Simulation is based on the concept that students will learn office skills under office-like conditions, so one must select or produce a package which most nearly represents the office experience students will need for initial employment in their community. Ask the following questions about the package:

1. What documents will be coming across the desks of each person involved in the simulation?
2. What kind of action is taken with each of the documents?
3. Does this action coincide with the objectives established for your course?
4. What kind of communications will be used in the simulation other than the written document, and how will they be used?
5. How will the work flow from position to position?
6. How will one be able to evaluate the students?
7. What equipment will one need to perform the office duties?
8. What kind of interaction will occur between students, between student and teacher, and between teachers?
9. How difficult is it to introduce the material into the simulation?

Concept 2. Define the limits. Unless a simulation package is adapted to meet the needs of a specific situation, one will have much difficulty making it function. It is not the purpose of any simulation package to merely copy all of the procedures that occur in an office and transfer them into an office education classroom. Each teacher must establish objectives that can be achieved through the use of the selected simulation. Once the simulation can meet the objectives, it has to be trimmed or expanded to fit into the physical facilities. There must be sufficient equipment for each student's use and enough space in which to work. Another factor for consideration is the amount of time allowable for the simulation process. How will it fit the curriculum? Care should be exercised to see that all limitations are considered before the package is selected in order to see that the proper package is obtained.

Concept 3. Select student stations. Simulation packages that have already been prepared already contain this step. A teacher will probably adopt the same office positions found in the package, but he should not be afraid to alter these packages to meet his needs by leaving out a position or two. Work that was to have been channeled to these positions will have to be done by other positions, but businesses do this all of the time.

If a teacher creates his own simulation, he will probably have to combine many of the jobs observed in the office into some positions which will meet the instructional needs. Following are examples of some student work positions used in the MOE simulation package.[5] (The package is a mortgage loan company.)

Vice-president:	Dictates letters, adjusts work loads for the absent workers, payroll management, telephone communication, and other leadership responsibilities as they are needed
Executive secretary:	Takes care of vice-president's secretarial needs, takes dictation, transcribes letters, telephone communication, processes some payroll work, and keeps the office functioning in the vice-president's absence
Cashier:	Prepares bank deposits, processes mail, types some correspondence, telephone communication, and supervises work of other members of the office staff
Insurance clerk:	Uses tickler files, types correspondence, posts to ledgers, telephone communication, uses calculating equipment, and works with office staff
Posting and tax clerk:	Posts to ledgers, writes checks, cares for customer accounts, telephone communication, and works with the office staff
Receptionist:	Answers and transfers telephone calls, processes the incoming and outgoing office mail, files, duplicates office material, and works with the office staff
Simulator:	Provides the input into the office from the outside world with the help of the teacher, including telephone work, answers correspondence, accepts bank deposits, and processes all material which is sent out of the office.

Concept 4. Define basic routines. Each position needs to be identified and objectives established so that students will have specific experiences at specific work stations. It seems necessary for students to experience the routine of the office. In order to do this, there needs to be a certain daily routine for each position. These routines can be established through the use of a flow diagram.

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[5] *Ibid.*

Concept 5. Prepare job description manuals. Job description manuals explain each office procedure in detail. They often contain the flow diagram of each activity together with a written explanation of the steps to follow in completing the procedure. Students are encouraged to use the manual as much as possible when they have procedural questions. Teachers must be available for student help, but it is important that students be allowed to work out most of the problems through the use of their written instructions and common sense.

Concept 6. Develop a basic script. As students rotate through each of the office positions, they will be performing different procedures at each position. These tasks need to be outlined in the form of a script so that the teacher and the simulator can respond to the needs of the office with the proper input and reactions at the proper time. The teacher supervises this operation very carefully in order to meet the specific needs of each individual as much as possible. This script becomes the lesson plan.

Concept 7. Add a contingency file. A contingency file is a resource file from which the teacher and the simulator can obtain input material. This material will give students at certain positions the work to do that will meet the objectives for that person. Examples of some likely contingencies are dictation problems, telephone problems, rush jobs for evaluation purposes, customer problems, and the like.

Concept 8. Establish evaluation procedures. Many simulation teachers say that evaluation is the most difficult part of simulation. Some solve the difficult problem by merely granting a passing grade to the successful students. However, it is worth the effort to conduct a good evaluation since this is one way of seeing that each student gets the most out of a simulation program. Here are a few suggestions which have been used and seem to work.

1. Have the students make a carbon copy of all typewritten work they complete. Place their copies in the *out* basket on their desk to be picked up and placed in a file. Each student will have his individual file so that the teacher can periodically check the amount and quality of work performed.

2. Have the student office supervisor periodically evaluate every worker under his supervision. These evaluations should be personally handed to the instructor and kept confidential. With some teacher assistance, the students can be very objective. The teacher should evaluate the supervisor each time the supervisor evaluates his workers.

3. Periodic efficiency checks can be made on performance goals through the use of a timed production quiz. An example of a typewriting quiz would be a series of letters that have to be completed in a set period of time. Interrupt the student with such controlled intrusions as telephone calls, visitors, and other office business so that he can be evaluated under pressure. Establish norms and evaluate his work.

Concept 9. Conduct debriefings. Learning consists of a transfer of knowledge to the learners from some outside source. In the classroom, as one simulation teacher put it, "We don't teach these kids anything . . . we just set up the learning situation and allow them to learn." As a part of their learning in the simulation, the students should be led through periodic debriefings. The teacher calls the students together in various size groups and asks them to comment on what is happening. These debriefings are very important. Sometimes they should be held every day; at other times they may be held only once every two weeks. The teacher should decide when they are needed and how long they should last. When the students are through talking and have nothing more to say, the debriefing has served its purpose. The following are some rules that can be used in conducting debriefings:

1. Call the entire debriefing group together. Seat them so that they can see one another.
2. Start by asking a general question like, "How did things go today?" "How could we improve the simulation?" "Where were our problems?"
3. Do not suggest answers even if there are long periods of silence. The participants must do the thinking and the talking. Further questions may help to shorten the periods of silence. Once the group starts talking, it usually continues.
4. Keep the group on the subject. Adjourn the debriefing rather than let it degenerate into a chatter session.
5. Do not let the group blame other people for weaknesses in the procedure. You want to discuss these weaknesses, but not by blaming anyone for them.
6. Keep records of each debriefing. There are many changes you may want to incorporate after one of these sessions. Have one or all of the executive secretaries take the minutes.
7. Encourage the participants to interact with each other. The idea is to let them correct themselves. The teacher should be there at all times only to lead and guide.
8. Allow sufficient time for the debriefing so that you do not have to stop just as the ideas are beginning to develop. The last five or ten minutes of a class period is not a good time for a debriefing.
9. End on a pleasant note. It is not bad for the participants to become upset with one another, but try to smooth out the rough spots before adjournment.

SIMULATION IN THE CURRICULUM

The simulation program can be used in many different office education classes in the curriculum. Some teachers use it in second-year shorthand or typewriting, a business machines course, an office procedures course, or even a specific course designed for simulation. Wherever simulation is placed, a student should be required to use it only as a capstone experience during one year. It is possible to introduce a very short simulation in a beginning typewriting or shorthand class, but at this level of skill development, most of the classroom time should be used to develop skill competency.

After a rather thorough search for new simulation programs and many visits to simulation facilities, there seem to be four basic plans of simulation in use today. Each one is a bit different from the others, but because of these differences, one may fit a specific curriculum better than another. No research has been completed at this time that shows which of these methods best suits the needs of office education students. The instructor must determine that. A brief outline of these types is presented below. Since an effort has been made to combine characteristics of like programs into one description, it may not fit one existing program in every detail.

Plan 1. A classroom is established as an office and is used for no other classes. The class schedule lists the course as a simulation course and the students do nothing else during the two periods they spend in that course every day. The class is open to juniors and seniors, and in some cases, a student can enroll for both years. The supervisory positions are occupied by the second-year students and the entry-level jobs are held by the first-year students. Instruction is conducted on an informal basis with much of it being done by the student. Each student is responsible to train the incoming student as he rotates from position to position. The classroom facilities and equipment are usually very sophisticated.

Plan 1 characteristics.

1. The student spends sufficient time in the simulation to experience the routine, the excitement, the monotony, the promotions, and the overall feeling of the real office world.
2. Since this type of simulation is usually large enough to warrant several positions within several departments, the student learns how to participate in such a large departmental atmosphere as in stenographic pools, clerical typewriting pools, duplicating departments, and payroll departments.
3. Since the instructor acts as president of the company and usually teaches more than one section of simulation, he has time to devote most of his time to implementing procedures and improving the package. Communications with the students are conducted through normal office procedures such as staff meetings, memos, etc. Routine lesson plans and learning units are not used as they are in other simulation plans.
4. The simulation package is extensively structured with many employee manuals and organizational charts providing a standard operating procedure for most situations.

5. Students work for promotions much the same as they do in a real office situation. This experience provides the setting for competitive work among students.
6. This simulation is very time consuming, as a one-year student will spend up to 360 hours, and a second-year student can spend up to 720 hours in this simulated condition. There is some question as to whether or not the simulation can offer constructive experiences to the student for such a length of time.
7. Most of the teaching is done by students as they leave and enter specific jobs. There are definitely pros and cons with this method. Students learn from the explaining of their positions, but they also get shortchanged from having the students do most of the teaching. The magnitude of this problem depends largely on the caliber of the teacher.
8. Student motivation is usually lower in this type of program than in any other kind of simulation mentioned here. The time element is so large that unless the student really enjoys the office in every aspect, boredom can set in. This may not be a bad characteristic, but it needs to be looked at very seriously.

Plan 2. This simulation is conducted in a two-period block of time in a classroom that resembles any well-equipped office education room. Simulations are conducted for two separate groups of students: clerical and secretarial. One teacher using this method tells her story this way:

> In order to meet the needs of our nonshorthand seniors this year, we decided to establish an office laboratory using machine transcription instead of shorthand as our skill area. A local businessman in our community introduced me to the officers of a large insurance company whose home offices are in Seattle: Through the office of the vice-president of education, we dreamed up an insurance simulation. To make a long story short, the girls in the model office make up the parent company—The Hawk Insurance Company. The girls in the office laboratory act as agencies of the parent company, and the students enrolled in driving education are our applicants. We sell only auto insurance.
>
> To better prepare the girls who first enter the model office, I prepared instructional belts covering the many facets of model office operation. Such areas included an "exposure type of rotation" on phone technique, payroll, duplication, rotary and printing calculator, and seeking employment. These belts were prepared by dictating the original material on a tape recorder. From the tape recorder we jacked to dictating equipment. From one tape we made as many duplicate belts as were needed for each area.[6]

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[6] Funk, Beverley; McBeth, John; and Poland, Robert. "Vocational Office Block Program." Reprinted from *The Journal of Business Education.* Copyright, 1969, by Robert C. Trethaway.

The parent company has its facilities located in a separate room. The teacher usually remains in the classroom working with the learning units while the six or so students work in the parent company office in a separate classroom with periodic supervision. Students rotate in and out of the parent company. At the end of the year, each student has spent equal time in and out of the parent company office. The insurance simulation package is now available and is functional with secretarial and clerical students.[7]

Plan 2 characteristics.

1. The parent company office is located in another part of the business facility. The simulation program does not interrupt the use of the room for other office occupations classes.
2. The instructional units must be set up for individual instruction. This can be accomplished through the use of some recording device or on a written programmed basis. The latter usually refers to some text or other printed material for resource information.
3. The students provide their own input into the parent office by functioning as customers. They answer their mail and apply for whatever service or commodity they need to keep the office going. Time is given for this purpose at the beginning of each class period before work starts on the learning units.
4. Since the actual size of the parent office is small, each student is forced to carry his own load. The performance evaluation is easier in this plan.
5. The office functions with the occasional assistance of the teacher. Students supervise themselves according to the responsibility given them in the simulation. The office, therefore, provides a very good opportunity for employee interaction.
6. The teacher must be capable of correlating the work of each student so that the proper learning units are completed. The student needs to learn enough to meet his own objectives.
7. Since the student rotates in and out of the classroom and the parent office, the program keeps a fast moving pace. This keeps the motivation extremely high and holds the interest of each student throughout the school year.

Plan 3. This simulation only consumes from 8 to 12 weeks of the school year. The rest of the year is spent with learning unit instruction. When the simulation time rolls around, desks and equipment are moved from conventional positions to form offices, telephones are installed or plugged in, and temporary partitions are placed in strategic locations to add privacy and atmosphere. The entire classroom simulates at the same time.

The office is assembled and dissembled each day. When the students come to class, they spend about five minutes assembling the simulation facility and another five minutes restoring the classroom at the end. The desks, typewriters, and other heavy equipment remain in the same location throughout the entire day, while such things as phones, in- and out-trays, partitions, etc. are moved in and out as needed. Utah has developed a simulation that fits this plan which can be used in the following ways throughout the school year. The teacher can select the time schedule which suits a particular situation.

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[7] *Simulated Automobile Insurance Forms.* Seattle: Washington Insurance Council.

POSSIBLE OFFICE SIMULATION SCHEDULES FOR PLAN 3

I	(27 weeks) Learning Units	(9 weeks) Simulation					
II	(13 weeks) Learning Units	(4 weeks) Simulation	(13 weeks) Learning Units	(4 weeks) Simulation	(2 weeks) Review and Evaluation		
III	(9 weeks) Learning Units	(2 weeks) Simulation	(7 weeks) Learning Units	(2 weeks) Simulation	(7 weeks) Learning Units	(7 weeks) Simulation	(2 weeks) Review and Evaluation

Plan 3 characteristics.

1. This simulation will fit into many different school situations with a minimum of effort and expense. It is possible to simulate with only typewriters and tables for equipment. Additional equipment will surely add to the realism of the simulation, but may not be critical to the overall success of the simulation.
2. Advanced shorthand, typewriting, and machines classes lend themselves very well to this simulation. A concurrent two-period block of time is needed for the best results. Office practice or simulation classes are best for this program.
3. Students can rotate through all stations spending equal time in each position. With the flexibility of this program, it is possible to have students rotate only through those positions that fit his needs.
4. Since the simulation involves the entire class at once, the learning units can be taught in quite conventional ways, requiring little change from practiced patterns. For example, a second-year shorthand class can learn shorthand skills for as many weeks as the teacher feels is necessary and can then turn to the simulation to practice the related skills.
5. Many teachers use short two-week simulations for motivation early in the school year as shown in the table. Through this short simulation experience, students can see what they need to learn very quickly.
6. Even though the entire class simulates at one time, the offices are kept small. One Utah high school uses this plan for a classroom of 45 students. The class is an advanced shorthand class for most of the year. It then breaks down into five separate offices in one room. The offices are separated with portable partitions. The small offices keep the responsibility on the shoulders of each student.

7. Since the simulation ends for all students at the same time, it is possible for all or part of the students to continue into a co-op program as they are ready. Slower students could go back into learning units as needed and even recycle through the simulation.

Plan 4. A mobile unit is constructed to provide the facility for the office simulation. It is complete with the most up-to-date equipment available. The unit then rotates among several high schools or postsecondary schools using the basic plan outlined in plan three. For best results, an itinerant teacher is placed in the unit and travels with it at all times. Up to four schools can be serviced during one year, allowing eight weeks' simulation time for each school.

A two-hour block of time is recommended in the class period. The classroom teacher teaches the two-hour block of time on a normal basis after having met with the mobile teacher to determine objectives and goals. When the unit arrives, the class moves in, and the two teachers operate as a team, with the classroom teacher as leader. The mobile instructor can teach adult education courses when the facility is not in use with the regular school program. Simulation provides an excellent program for retraining adults for the office.

Plan 4 characteristics.

1. One unit can be shared by up to four schools. Each school has access to a first-class unit at significantly less cost than it would need to establish separate facilities at each school.
2. The classroom teacher can concentrate on teaching the learning units, and the MOF teacher can specialize in the simulation itself. As a team, they can conquer most of the office education problems. This would be a disadvantage if the team weren't compatible.
3. A separate first-class facility adds prestige to the program. Students actually leave their classroom to go to work. They like that feeling.
4. Classroom teachers must use the unit when it is available. It may arrive at an inconvenient time. Some schools have to use the unit at the first of the school year when the students have had little of the learning unit instruction.
5. The unit is available for summer teaching away from the school facility. The unit can be used completely independent of other school facilities.
6. The mobile concept, although originally designed for rural use, can be used in an urban school setting. In a district where there are several high schools or in districts in the metropolitan areas, the unit has many significant advantages.
7. A unit can be constructed to house 19 students for around $30,000, complete with heat, carpets, air conditioning, and all office equipment.

THE SIMULATION TEACHER

Requirements. With the rapid expansion of simulation in recent years, many simulation teacher characteristics have emerged. The teacher remains the most important element of the program. It is interesting to note how the "worst" teacher can make the best program fail and the "best" teacher can make the worst simulation succeed. Many studies have been made in an attempt to determine the difference between good and bad teachers, but the results are difficult to assess. The following is a list of the characteristics of successful simulation teachers. Perhaps they may help in identifying qualified people.

1. Recent on-the-job office experience
2. A good working relationship with the school administration
3. Constant contact with business people
4. An active advisory council
5. A desire to teach with new methods
6. The common sense and abilities of an office manager
7. A good simulation package
8. Constant interaction with other simulation teachers
9. Professional assistance from university and state office education personnel.

The initial stages of any simulation are frustrating to teachers and students alike. As the participants get accustomed to the program, it settles down considerably. The results of simulation are worth the effort. The teacher is the most important element in the simulation program and care should be exercised to see that the proper instructor who can handle the program is selected.

Teacher training. Teacher-training institutions are cranking out with regularity the business teacher who is qualified to teach shorthand, typewriting, and accounting. It is a bit difficult to locate teacher-training programs that offer the prospective teacher anything in simulation outside of an occasional summer workshop. As new teachers are trained, it is important that more emphasis be placed on simulation. Naturally, if a new teacher has actually had some simulation experience, the teaching of a simulation course is much easier.

PUBLIC RELATIONS TIPS FOR SIMULATION

Since simulation is a relatively new concept in office education, one has a built-in publicity factor to introduce simulation in a school. School officials are eager to broadcast such news with vigor. It is this vigor which provides new equipment, programs, and a new lease on life. Let your advisory committee help put the program together. Write some newspaper articles describing the operation and how it functions. Provide the press and television with pictures to show. Print some brochures for distribution at PTA meetings, for school counselor use, and for handing to students prior to registration. Let the community know what goes on with a simulation program.

One of the most successful public relations activities in simulation is the open house. The open house fits well in the simulation program and gives parents and businessmen an opportunity to see what the business department is doing to provide employees for the office. It also gives the teacher an opportunity to get better acquainted with the interested people outside the school.

THE SIMULATION FUTURE

The 1970's will feature a new office occupations curriculum at all levels of instruction, and simulation will play a significant role. It seems that there is a definite need to train more people in less time for office work. It also seems that business teachers "may" be overtraining in the specific skills such as typewriting, shorthand, and bookkeeping, while at the same time they are undertraining in other office skills such as office systems, telephone, office situations, and office people. Simulation provides many of these other skills.

The obvious solution to this problem is to add another two-period block of time to all business students' schedules. The time just isn't there. We see the future high school business curriculum as follows:

> For stenographers one year of beginning typewriting, one year of beginning shorthand, and one year of a two-period block of time where units of instruction are provided during the first part of the year, with a simulation introduced as the student progresses. Students who progress to the level of office competency are placed on the job in a co-op program. Homework from this class consists of the second-year shorthand work, is introduced in class for very short periods of time very frequently throughout the course. Those students who need additional shorthand training will have to continue into postsecondary institutions for that training.
>
> For clerks one year of beginning typewriting and one year of a two-period block of time in which like experiences are provided as described above with the exception of the shorthand training. Additional training will be available on the postsecondary level.

Such courses as bookkeeping, data processing, filing, and office machines will be incorporated into the block period of time. The basic concepts will be taught and then put into practice in the simulation. Bookkeeping principles will be limited to posting, ledgers, journals, payroll, and statements. Students interested in further instruction in accounting will also have to proceed on the postsecondary level.

Teachers will work in teams so that students can identify their needs and have access to professional help that is qualified to meet those needs. It is quite likely that facilities will be expanded so that an entire business department will be sharing duties during most or all periods during the day. Students will be able to change from subject to subject throughout the year according to their needs and desires. The school record will show the completion of the business block with emphasis in ________________ and ________________ .

The basic business subject such as general business will be taught in grades 8 and 9 with renewed interest. Only one year will be taught (and in some cases, one semester of one year will be sufficient). The course will include much of what it now contains with the exception that it will be introduced through the use of gaming techniques. Concepts will be taught and then put into use in activities of all sorts which will relate the learning to real conditions.

The postsecondary institution will be used to train students in areas of such a special need as advanced stenography of all kinds, accounting, data processing, executive secretary work, business administration, and teacher preparation. Simulation will play a big role in most of these areas.

Simulation provides an exciting and relevant way to teach business subjects. It has been around for a long time, but until recently, it has not been available for the masses. In order to reach the mass of students who want and need office education, simulation will become a more important part of the curriculum. Teachers will need to become familiar with simulation functions and to have office experience in order to conduct such programs.

The future of business education has never looked brighter, and teachers of the business subjects must rise to the occasion with the best programs possible at all levels. Simulation will surely have its place in the coming business curriculum.

CHAPTER 18

Intensive Laboratory Education

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The in-school intensive business office laboratory program in Indiana is more than a simulation of an actual occupational area. It is an actual office. It is an intense environment that fully duplicates an actual business establishment 100 percent in layout, equipment, and materials. It contains all the pressures, demands, and problem-solving abilities that will be encountered by an employee within an eight-hour working day. It is an application of previously learned knowledges and skills to an actual office environment rather than initial development for the first time. The instruction centers on the performance of production tasks on actual occupational and educational projects that are brought into the program from businesses or from within the school to develop occupational clusters of knowledges. The entire program is directly related to employment opportunities and has course work set up and maintained with the advice of occupational groups concerned.

Each student within the program is required to perform a variety of major tasks which comprise the occupational area for which he is preparing. The instruction is provided on an individual basis, and thus it can provide the above-average student a higher degree of proficiency as well as offering an employable skill to the student who is below average. There must be evidence of a true occupational philosophy where each student is to perform actual office activities under office conditions so as to be fully competent when seeking, as well as maintaining, employment on an individual basis. To be comparable to a cooperative program which utilizes actual business establishments, the intensive business office laboratory program must make certain of full duplication of those actual business concerns, even to the degree that grade requirements are equal to actual entry-job requirements.

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What distinguishes the intensive business office laboratory program from the regular business education program? The following comparisons of "Before" and "Now" point out some of the main differences.

(B) All students are doing the same thing at the same time.

(N) Each student performs actual office activities as an individual while under office pressures.

(B) Materials and projects come from published textbooks and practice sets.

(N) The instruction centers in the performance of production tasks on actual occupational and educational projects which are brought into the laboratory from outside agencies or from within the school rather than from a textbook or practice set.

(B) Length of instruction, regardless of career objective of the student, is usually the same for all.

(N) The length of instruction is determined by the requirements of the occupation and the needs of the students.

(B) Equipment is usually of the same make rather than the variety found in the business office.

(N) In atmosphere, layout, and equipment, the laboratory is fully comparable to a modern, well-designed functional business office.

(B) The classroom or group instruction doesn't bridge the gap between the school and the world of work; consequently, the student usually enters private school for additional training or acquires only an entry-level position.

(N) Each student in the laboratory is required to perform a variety of major tasks that comprise the office occupation for which he is preparing without needing further training upon graduation. It fully duplicates the training program in existence in the business or according to actual current employment opportunities.

(B) It is usually a course presenting much "how" and lacking the "why" something is done and not a four-year program of instruction. It usually is totally skill oriented.

(N) Experiences are provided through the laboratory in which exercises and problems involving the application of knowledges and skills will be an integral part of the learning experiences. It requires an interweaving of the ninth grade comprehensive program through to actual application within the twelfth grade capstone.

(B) General preparation for a job rather than preparation for a career or permanence of employment is the usual goal.

(N) Instruction is offered only to persons who need, desire, and can profit from it occupationally.

(B) Course work is maintained without the advice of occupational groups or according to employment opportunities.

(N) The program is directly related to employment opportunities and has course work set up and maintained with advice from the occupational groups concerned.

(B) The classroom doesn't provide technical training for the above- or below-average student; the middle-of-the-road approach is used.

(N) Instruction is provided on the individual basis and thus can provide the above average a higher degree of proficiency and technical education as well as offering the below average an employable skill.

(B) Each course is taught on a one-hour basis, many times with no relationship to any other.

(N) A block of two or three consecutive class periods is used for the laboratory.

DEVELOPING THE INITIAL LABORATORY PROGRAM

Community survey. Before initiating the survey, the coordinator must determine the employment area by contacting former graduates. Once this employment area has been established, the survey form is mailed to businesses to learn the following:

1. Levels and titles of entry jobs available for high school graduates
2. Training standards required for these entry jobs
3. Need for qualified workers in the various areas
4. Deficiencies found in office workers
5. Types and brands of business machines used
6. Recommendations of businesses for improving the quality and type of training for office workers
7. Employment testing procedures used in selecting new employees
8. Training programs established by business for advancement of employees.

Steering committee. This committee should have a cross section of representatives from education, business, labor, parents, students who would be involved in or concerned with the program. For this committee, people should be selected who do and do not favor this new program. This is the first consideration of a sounding board, and it should be organized at least one year prior to setting up the program.

Advisory committee. Members should be selected by the coordinator (with administrative approval) on the basis that they have had recent, successful, first-hand, and practical experience in business and office occupations. This committee should also include administrators, guidance counselors, and other business education teachers, and it should be a sounding board for advice on operating procedures. Membership should be for at least one year, and the number of members should be five or more. It is this committee that provides the direct and definite conditions that are followed within the actual program. It is extremely important that this committee is established and becomes a functional committee.

Occupational training program. The body of subject matter should be organized into programs of instruction that provide opportunities for pupils to prepare for and achieve career objectives in selected office occupations. Learning experiences are designed to lead to gainful employment of individuals on graduation in office occupations. The categories and occupational groups into which the intensive business office laboratory can be organized as a total company or as individual stations within a laboratory are:

1. Accounting and computing—junior accountants, bookkeepers, cashiers, machine operators, tellers
2. Business data processing systems—computer and console operators, peripheral equipment operators, programmers, systems analysis
3. Filing, office machines, and general office clerical—duplicating machine operators, file clerks, general office clerks
4. Information communication—communications systems clerks and operators, correspondence clerks, mail and postal clerks, mail-preparing and mail-handling machine operators, messengers, receptionists, and information clerks
5. Material support occupations—transporting, storing, and recording; planning and production clerks; traffic, rate, and transportation clerks
6. Personnel, training, and related—educational and training assistants, interviewers and test technicians, personnel assistants
7. Stenographic, secretarial, and related—executive administrative secretary, secretaries, stenographers, etc.
8. Supervisory and administrative management
9. Typing and related—clerk typists, keypunch and coding equipment operators, typists, etc.
10. Miscellaneous office—collectors, hotel clerks, clerical technicians, credit clerks, etc.

Block of time. A block of two or three consecutive class periods should be provided each day for one or two semesters. This length of time is equivalent to the time a cooperative student will spend "on the job" each day. During this block period, the students should be provided with related instruction to supplement the laboratory training, work projects according to career objectives, and field trips to gain insight into businesses and their operations, etc. The coordinator has sufficient time to give individual or group instruction as needed during the block of time.

Scheduling. Although most programs are scheduled for two semesters during the senior year, some schools offer the laboratory program the first semester and the cooperative program the second semester. The method used depends on the abilities of the students and whether on-the-job training stations are available.

Lanes of entry must be developed so that the students will have completed all prerequisite courses prior to entering the laboratory program as seniors. Skills are to be polished and refined rather than introduced and developed in the laboratory. For example, the lanes of entry for the clerk typist and stenographic programs might be:

	Clerk Typist	Stenographic
Grade 10	Beginning Typing Office Procedures	Beginning Typing Office Procedures
Grade 11	Advanced Typing Business Machines Beginning Shorthand*	Advanced Typing Business Machines Beginning Shorthand
Grade 12	Intensive Business Office Laboratory Accounting* Economics	Intensive Business Office Laboratory Accounting* Economics

(* Recommended)

Some students may not meet all of the prerequisite course requirements. The decision to admit these students should be based on the recommendations of other business education teachers, guidance counselors, and employment needs. A coordinator should evaluate and select each student as an employer would. If a student is admitted without meeting all of the requirements, it is recommended that this student take the course(s) in conjunction with the laboratory; consequently, he will likely be prepared for a lesser employment position. The lanes should possess many of the comprehensive courses as highly recommended for enrolling. General business, law, and accounting may be a fundamental part of some areas of employment.

Selection of students. The intensive business office laboratory program is for senior *boys* and *girls* who plan to enter gainful office occupations upon graduation. Those students planning some type of postsecondary education should be permitted to enroll in the program as they can use this training to obtain part-time employment while in school. Even though a student starts a postsecondary program, there is not any guarantee that he will complete it. He will then have this laboratory training to find gainful employment.

The laboratory program should be available to *any* student who has completed all prerequisite courses and who has the need for this training. The average and below average should have enrollment preference over the above average if an elimination preference must be made.

The coordinator and guidance counselor should work closely in counseling a student about which training program he should enter. In other words, a low-ability student should not be permitted to waste his time in a stenographic or data processing computer base or unit-records laboratory.

Facilities and equipment requirements. In atmosphere, layout, and equipment, the intensive business office laboratory should be fully comparable to a modern, well-designed, functional general business office. An ideal situation would be an individual work-station area of approximately 25 square feet. This would allow sufficient desk space for the various jobs, supplies, and equipment required to complete the work projects.

Each work-station area should be equipped with a large office desk with storage drawers, a typewriter (preferably electric), an adding or calculating machine, a transcribing machine, small office supplies (paper clips, rubber bands, stapler, etc.), and reference books. Equipment should be of various brands and models so that the student will have a working knowledge of most of the various kinds found in business offices today. Other needed equipment includes filing cabinets, stencil and liquid duplicators, mimeoscope and styli, paper cutter, time clock, check-printing machine, posting machine, electronic stencil duplicator, etc. Carpeting and drapes help create an office atmosphere.

Most schools will have to use existing furniture and equipment when first starting. Replacement and additions can be made as money becomes available. A departmental budget should be established for the laboratory. This budget plus state reimbursement (depending on individual state policy) can be used to create a real office situation. Yet all equipment and that which is found at each station must first be determined by a community survey.

Coordination time. The coordinator should be given released time each day, usually one class period, to develop work-station materials, do a yearly follow-up study of graduates, visit business offices, prepare instructional materials for related instructions, plan budgetary expenditures, and visit laboratory programs in surrounding schools. This released time should be above and beyond the regular teaching schedule of the coordinator.

Cooperation with business educators. The organization and development of the intensive business office laboratory should be the responsibility of all teachers within the department, not just the coordinator's. This program is just one part of the entire business education department. The cooperation of all teachers will assure a more successful program, for it is really a four-year program.

The coordinator of a new program should seek help and advice from coordinators throughout the state. The chief state supervisor of business and office education will be able to give assistance and advice. The laboratory should and can be the cooperative effort of many business educators.

Functional work stations. The student working on a functional work station (training stations set up enabling the laboratory to function as an office) is directly responsible to the coordinator. The student is placed on a functional work station on the same rotation basis as on a project or production work station and should have a desk manual to follow in performing the duties required for this position.

Project work stations. The materials for these work stations are brought into the classroom from actual businesses. The student does the same jobs in the classroom-that would be done in the actual business office. These work-station materials can be organized around one person's job in the office for a student to work on individually, or they can be organized around various jobs in the office for several students to work on as a team, but each with individual responsibilities. The intensive business office laboratory can also be set up as one company having several departments with the work flowing from one person to another until a complete cycle has been completed. Examples of project work stations are as follows:

Stenographic Work Stations

Western Wayne Schools (Education)
Christian Chevrolet Company (Sales)
Parsons Realty Company (Real Estate)
Commonwealth Life Insurance Company (Insurance)
Mercury Record Manufacturing Company (Manufacturing–Purchasing)
Wayne Trust Company (Banking)
Divco-Wayne Corporation (Manufacturing–Advertising)
The Clinic (Medical)
Golay and Company (Manufacturing–Purchasing)
General Telephone Company of Indiana (Utilities)

Clerk Typist Work Stations

Dr. Robert Cox, D.D.S. (Dental)
Cutshaw and Holtsclaw (Legal)
M and D Store Fixtures (Billing)
New Haven High School (Education)
Wayne Trust Company (Banking)
Insurance Company of North America (Cashier)
New Castle State Hospital (Medical)
Mercury Records Manufacturing Company (Manufacturing–Shipping)
Funkhouser Trucking Company (Transportation)
Health Insurance Company (Insurance)

Multiperson Clerk Typist Work Station

M and D Store Fixtures–Department Supervisor, Time Keeper, Shop Scheduling Clerk, Accounting Clerks (2), and Inventory Clerk.
Lee Cylinders Division, Golay and Company–Department Supervisor, Order Clerk, Repair Clerk, Invoice Clerk, Accounting Clerk, and Shipping Clerk.

Such work stations will allow one to accept students possessing many task abilities as well as some having only one task.

Production work stations. These are the positions within the school system where the students from the laboratory are assigned. This type of station provides work experience similar to the cooperative program. In fact, the laboratory program must be more detailed and pressure *packed* to make this student equal to, if not better than, the cooperative student. These students should rotate from office to office at stated intervals. They will spend part of each day in the laboratory for related instructions. The work may also be brought to the laboratory for the student to complete.

The production work stations might include positions with the superintendent, principal, guidance counselors, department chairmen, athletic director, maintenance supervisor, cafeteria supervisor, librarian, attendance officer, and deans of boys and girls.

PREPARATION OF MATERIALS

Selection of work-station areas. The advisory committee should be utilized in selecting work areas for work-station materials. The coordinator should prepare a partial list for the advisory committee to look over prior to the meeting. When they know what areas have been listed, they can suggest additional areas and give the names of companies and key personnel within the companies. The laboratory students will make suggestions for possible work-station areas within the companies that employ their parents. Former business graduates are another good source of work-station materials as well as aides in updating previously used stations. It is suggested that past graduates keep a log and record of all duties so as to keep the coordinator informed of all changes.

Contact with businesses. The coordinator must be able to sell the idea of the intensive business office laboratory program to a businessman before he will agree to cooperate. The first few contacts will be the most difficult. To gain complete cooperation, the coordinator must be able to explain the program fully and convince the businessman of its importance and value.

The initial contact with a business should be through the personnel manager. After he understands the purpose of the program, he can refer the coordinator to the department which will be used in preparing the work-station materials. The coordinator should take a completed set of work-station materials along as a sample of what will be needed from that business. Four or five visits of an hour or two each should be sufficient to gather all the information and materials needed.

Information and materials needed. The following guidelines should be used for compiling the materials into a step-by-step plan.

1. Company description—can be taken from a company brochure giving the history of the company and its products, or it can be gained from

information given orally by key personnel. This description of the company should be at least one full page in length. Other information, such as services rendered, number of employees, departments, fringe benefits, and pay schedule, can be included.

2. Office layout—should include the location of desks, filing cabinets, telephones, work tables, equipment, etc., and should definitely show the location of the desk around which this work station has been organized. It is also suggested that all desks be labeled as to the type of work completed at each.
3. Organization chart—giving only the position titles and not employees' names, can be a chart of the entire business or just one department, depending on the size of the business. The coordinator should indicate on the organization chart the actual position that the student would occupy while on this work station.
4. Job description—will be available for each employee in most large businesses. If not, the employee will need to keep a record of the duties performed for a five-day period and also list those jobs performed only periodically. The coordinator will need to include to whom the employee is immediately responsible and the types of duties he performs for this individual. It is suggested that the qualifications, skills, employment testing, and advancement procedures for this particular position be given.
5. Job analysis—is a continuation (more detailed) of the information gathered for the job description. The duties performed are divided into: daily, periodically, and occasionally. Additional information should include equipment and brand names, skills and knowledges, general employment requirements, physical activities, working conditions, and so forth. The employee and employer should be asked to provide helpful hints that will give a prospective employee additional information about this job prior to entering the position.
6. Flow charts—should be provided showing the flow of work from this desk to other desks. To develop a better understanding of the flow of work, it is best to prepare a flow chart for each duty or business form that must be completed accompanied by a step-by-step explanation.
7. Vocabulary—should be taken from the actual job assignments: related textbooks, published lists distributed by business and industry, and periodicals. *Today's Secretary* is an excellent source for preparing this terminology list. No definitions should be given. Let the student be responsible for learning the words and their meanings.
8. Supply list—the supplies needed daily should be prepared for the student and the supplies clerk. This supply sheet can be prepared as the answer key is being typed or after the answer key has been completed.
9. General instructions—should be provided for each business form to be used in this work station. The instructions and the business form (completed as a sample) are for the student to use as a reference when working on daily assignments. The information must be at a level that

will not remove the problem-solving ability of the student. Once this section has been completed, it is best to return it to the businessman to check for accuracy.

10. Daily assignments are prepared after samples of the actual work have been gathered from the employee in the office (usually carbon or photo copies of materials in the files). How much can the student be expected to complete each day? A good rule to follow is, "What the coordinator can do in one hour, the student should be able to do in three hours." The materials should contain a variety of jobs and should have many levels of difficulty.
11. Original copies of business forms can be obtained when gathering the sample materials. Stencils should be cut from these originals for the laboratory supply files. The businessman should not be asked to provide these supplies for the students in the laboratory each year.
12. Answer key will be prepared after the materials have been separated into daily groups. The work assigned to the student on the first day or two should be short and fairly easy. As time progresses and the student becomes more familiar with the assignments, the difficulty and length can be increased. Since the office manager will be using this answer key to check students' completed assignments, it must be exact in every detail. Daily assignments and the answer key should be coded (such as la, lb, lc, etc.). This method of coding lets the student know what needs to be completed each day.

Assembling work-station materials. After all sections have been completed, it is recommended that all materials be placed sheet by sheet in plastic folders to preserve them. These folders should then be placed in notebooks that can be coded on the back with the company name and description of the contents.

The work-station notebooks should be labeled as follows:

1. Student information—includes company description, organization chart, office layout, job description, job analysis, flow charts and explanations, vocabulary, and supply sheet
2. Student instructions—includes general instructions with sample forms and daily student assignments
3. Answer key—includes all assignments to be used by the office manager in grading assignments
4. Original copies—includes all the original forms received from the business.

Cooperation in preparing materials. Coordinators should cooperate in preparing work-station materials. Summer workshops have proven to be the best method. In the workshop, several coordinators can join together in preparing work-station materials. Extended contracts during the summer months provide time for such activities.

A new coordinator can make arrangements with established programs and coordinators to borrow work-station materials with the understanding that he will return copies of his own stations when he has them prepared. A coordinator should never give out materials prepared by another coordinator without first getting permission or utilize them without first having them reviewed by his own employment community. Coordinators must cooperate in sharing ideas and materials if the intensive business office laboratory programs are to be successful.

EVALUATION PROCEDURES

One of the more difficult factors in organizing an intensive business office laboratory program is deciding the methods and standards of evaluation to be used. The coordinator will need to experiment with many methods before selecting the one that will best fit his own situation. The following methods and standards have been suggested for the Indiana program.

Grade sheet. Each work station should have a grade sheet listing all assignments. The following sample shows the organization of the beginning of the first page and end of the last page:

STUDENT______________________________ DATE __________________

COMPANY: Mercury Record Manufacturing Company CODE: SI

INDIVIDUAL PROGRESS CHART

JOB NO.	DESCRIPTION	ACC. / REJ.	REMARKS
1a	Letter—Johnson	_____/_____	______________
1b	Letter—Thompson	_____/_____	______________
1c	Memo—All Department Chairmen	_____/_____	______________
1d	Purchase Order—Smith and Smith	_____/_____	______________
1e	Purchase Order—Kemp Office Supplies	_____/_____	______________
10g	Letter—Jordan	_____/_____	______________

General Comments of the Student's Work on this Project:

____

____

Final Grades _____/_______ Coordinator ______________________________

Quality. All jobs are graded *A+* or *F*. If an assignment meets all set standards and can be mailed, the student receives an *A+*. If for some reason an assignment does not meet office standards and cannot be mailed, (i.e., spelling, messy corrections, placement, omissions, etc.), the student receives an *F*. The student must retype or correct the nonmailable assignment as soon as it is returned and resubmit it for regrading. It is again graded *A+* or *F*. If the assignment is rejected the second time, it is recommended that the student skip this assignment until after all other assignments have been completed before attempting to do it again.

A check mark is placed on the grade sheet in the "Accepted" or "Rejected" column for each graded assignment. At the end of each rotation period, the student receives 12 points for each assignment with a check mark in the "Accepted" column. If an assignment has a check mark in both the "Accepted" and "Rejected" columns, the student receives 6 points (12 plus 0 divided by 2). If an assignment has one or two check marks in the "Rejected" column, the student receives -6 points. After the points have been determined for each assignment, they are totaled and divided by the number of assignments completed. This grade (number) is placed on the last page in the first blank for "Final Grades." By using the number grade, the coordinator has a more nearly accurate final grade for "Quality." For example, if a student earned a 10.8 on one work station and a 9.8 on another, his average would be 10.3 or an *A-* (12 points equal *A+*, 11.0-11.9 equal *A*, 10.0-10.9 equal *A-*, down to 0 equals *F*). If the numbers are converted to letter grades and entered in the grade book, the coordinator must decide whether to give the student an *A-* or *B+*.

Quantity. Some students will complete assignments on schedule, while others will complete only a portion. Those who complete all assignments might do so at the expense of "Quality." Others may take entirely too long on assignments and receive excellent "Quality" grades but not "Quantity" grades. Students should be graded on both. By keeping a record of the number of assignments completed on each work station for at least one year, the coordinator will find that the average number of assignments completed will be approximately 75 percent. The grading scale for "Quantity" could be set up so that 90-100 percent is *A+*, 80-89 percent is *B+*, 75-79 percent is *C+*, and below 75 percent is *F*. This letter grade is recorded on the last page in the second blank for "Final Grades" and also in the grade book. When the grade sheet is returned to the student, he can see that his grade on the work station is 10.8/*A+* or an average of *A*.

Extra supplies. All paper supplies, with the exception of carbon paper and notebooks, should be furnished to the students (through laboratory fee charged each student). As a student completes a day's assignments, the supply clerk should have the supplies pulled for the next day's assignments. Whenever a student has to retype or start over on an assignment he must request extra supplies. The student must prepare an "Extra Supplies Request" form and give it to the supplies clerk before these additional supplies can be issued. At the end of each week, the supplies clerk prepares an "Extra Supplies Report" form for each student listing the amount of extra supplies requested each day. This report form lists the various paper supplies available and gives a predetermined monetary value to each a letterhead costs 10 cents, a second sheet costs 4 cents, etc. The dollar value of the "Extra Supplies Report" for each student is recorded in the grade book each Friday. At the end of the grading period, the amounts for each week for each student are totaled. The suggested grading scale is $.0-$1.00, *A+*; $1.01-$2.00, *B+*; $2.01-$4.00, *C+*; $4.01-$5.00, *D+*; and $5.01-up, *F*.

Absenteeism. Attendance should be stressed heavily during the orientation period in the fall. The coordinator should emphasize the fact that work accumulates when an employee is absent and that he must do his share in making the office function efficiently. Also, since a student is evaluated on the amount of work completed, absenteeism will affect the "Quantity" grade earned. By using time cards in the laboratory, the coordinator has an accurate record of attendance. The number of days missed by each student should be recorded in the grade book each Friday. At the end of a grading period, the following grading scale is suggested for evaluating absenteeism: 0 days, *A+*; 1 day, *C+*; 2 days, *D+*; 3 or more, *F*.

Tardiness. During the laboratory block of time, all bells signaling the start and dismissal of classes should be ignored. Students should be permitted to take "coffee breaks" (10 minutes) whenever they wish (one per day). Each student must record leaving and return times on the time cards. At the end of each day, the time cards should be checked to see if any student used more than 10 minutes on his break. If a student used more than 10 minutes, the number of extra minutes is written and circled on the time card. The student should be permitted only to take a 5-minute break the next day. At the end of each week, the number of extra minutes should be recorded in the grade book. The following suggested grading scale can be used at the end of a grading period: 0 minutes, *A+*; 1 minute, *C+*; 2-3 minutes, *D+*; and 4 or more minutes, *F*.

Use of time. As in all offices, some students will waste time, and they also disturb those around them. At the end of the grading period, the coordinator, by personal observation, should evaluate each student on how well he has used his time. An *A+* is given to the student who has used his time efficiently. The student who has wasted his time is given an *F*. When a student has worked efficiently most of the time, he is given a *C+*.

Practice. When two programs are offered at the same time in a laboratory, it is difficult to give group practice on improving present skills. Individual practice should be required. For example, the stenographic students should do shorthand practice related to the work-station materials they are assigned for each rotation period. The typing students need a variety of practice dealing with accuracy, speed, numbers, etc. All practice assignments can be completed in the laboratory if the students will plan and use their time wisely. These practice assignments are turned in once a week and are recorded in the grade book (check mark indicating completed and minus indicating not submitted or unsatisfactory). At the end of each grading period, it is suggested that an *A+* be given if all practice assignments have been submitted. An *F* is given if one or more assignments are missing.

Filing. Each work area should include space and supplies so that each student can organize his own filing system. A student should be required to prepare one or more carbon copies of each assignment. These carbon copies can be used to organize alphabetical, subject, geographical, etc. filing systems. The coordinator can check these files at the end of each grading period to determine how well the students are doing in their filing. If the files are in order, the student receives an *A+*. If the student has anything out of order, an *F* should be given.

Final grade percentages. The coordinator must decide what percentage should be used for each of the above items. The following percentages are suggested as a guideline:

1. Quality—20 percent
2. Quantity—20 percent
3. Extra supplies—10 percent
4. Absenteeism—10 percent
5. Tardiness—10 percent
6. Use of time—10 percent
7. Practice—10 percent
8. Filing—10 percent.

Proficiency index of student. The student should not be evaluated on skills performance alone, for many times this lack of a skill is not the reason for a dismissal. A checklist should be developed to inform students of their strong and/or weak points. The areas of this checklist should include personal appearance, personal traits, attendance, dependability, business techniques, etc. This index should not be used in determining the student's grade. It should be used, along with a personal conference, as a means of letting the student know what areas need to be improved so that he will become better qualified as an office employee.

Student evaluation of work-station materials. Students should be asked to evaluate the materials and procedures in the laboratory. The coordinator should use these comments and suggestions to improve the present materials and procedures. These suggestions can be used in preparing all new work-station materials. Several student evaluations should be used in comparing each set of materials before any changes are made.

PAYROLL PROCEDURES

In order to make the intensive business office laboratory program more realistic, simulated pay checks should be issued each week. A special check and check stub should be prepared.

The base pay should be an amount divisible by five, such as $100. If the base pay of $100 is used, the coordinator will subtract $20 for each day a student is absent. One dollar can be deducted for each minute over the 10 minutes allowed for breaks. The coordinator should indicate these deductions daily on the time card so that the office manager will know the amount to deduct when preparing the payroll at the end of each week. If no deductions are to be made, the coordinator should not mark the time card.

The office manager should pull the time cards on Friday and give them to the coordinator, and new time cards for the next week should be inserted in the rack. The coordinator needs to record the days missed and minutes tardy in the grade book.

On Monday, the office manager uses the time cards and extra supplies reports in preparing the payroll record sheet. This record includes student names, days absent, total pay received, deductions for federal and state withholding and Social Security taxes (coordinator needs to obtain current tax booklets), and class deductions for tardiness and extra supplies. When the payroll record sheet has been completed, the office manager requests the pay checks from the supplies clerk. All the information is typed on the check and check stub except for the written amount of the check. The check printing machine should be used to print this amount on each check.

When the student receives his pay check, he should separate the check from the stub, endorse the check, and return it to the receptionist-secretary. The receptionist-secretary files the checks, time cards, and extra supplies reports in the students' personnel folders. The payroll record sheet should be filed so that the next office manager can refer to it when computing the payroll.

ORIENTATION PROCEDURES

The first two weeks of the first semester should be used as an orientation period. The success of the program depends on how well all facets of the laboratory program are explained to the students. Once the students understand what is expected of them, the program will function more efficiently and smoothly. The following topics are a few to be discussed during this orientation period.

Time clock. Time cards should be prepared and placed in the rack when the students come into the laboratory the first day. The coordinator should explain the use of the time clock, time card, and time-card rack immediately so that the students can check in and out on the first day. During the orientation period, students should take break periods with the regular school schedule and should not check in and out on the time cards. Penalties for absences and tardiness should be explained and how they are indicated on the time cards.

Grading procedures. Generally, this will be the first time that the students will be evaluated *A+* or *F*. The coordinator will need to explain what constitutes mailable and nonmailable work. The grading system should be thoroughly discussed. Students need to know what percentage applies for quality, quantity, extra supplies, absenteeism, tardiness, practice, filing, and use of time at the end of each grading period. Since no tests or examinations are given, the coordinator must emphasize that performance will determine the student's success in the laboratory—just as in an office.

Skills brushup. After the summer vacation, shorthand and typing speeds need to be worked on to restore them to the level of proficiency needed in the laboratory. The coordinator should explain that the practice materials used will be similar to those found in the work-station materials. All materials will be corrected and returned to the students with suggestions on how to eliminate errors. The coordinator should use individual instruction whenever possible so that he can become better acquainted with the students.

Letter of application. The coordinator should go through the fundamentals of how to prepare a letter of application before having the students prepare rough-draft copies, each letter to be checked before the final copy is prepared. The students should use this letter of application when applying for work stations throughout the year. Suggestions for improving this letter should be made throughout the year so that the students will have a sample letter of application that can be used for applying for employment after graduation.

Personal data sheet. Each student should be required to prepare a personal data sheet. The coordinator should provide a list of topics to be included. Again, this personal data sheet can be used when applying for employment after graduation.

Employment applications. Through contacts with businesses in preparing work-station materials, the coordinator can obtain copies of application forms. By duplicating these forms and having the students complete them, they will know what information is needed to fill out an application form when they apply for full-time employment.

Filing systems. The coordinator should review the various filing systems, using the carbon copies from the previous year's work-station assignments as materials. Each student should have filing supplies and equipment at his work area so that he can set up his own filing system(s) for the work he does in the laboratory.

Introduction of work-station materials. Each student should be given a set of work-station materials so he can follow along as the coordinator explains the organization of these materials. This explanation will help to eliminate many questions later as the student will know where to look for the solutions to his questions instead of going to the office manager and/or coordinator for help.

Rotation schedule. The coordinator should explain how the rotation schedule operates. At this time, he should discuss the work and functional stations so that the students will be able to select the stations each rotation period. The coordinator should tell the students how the letter of application is to be used in applying for new work stations. Each student should complete three rotation periods (ten days 30 hours) before applying for a functional station.

Practice work station. During the second week of the orientation period, each student should be given a work station. One hour each day should be set aside for the student to work on the assignments in this station. The materials submitted should be graded, but they should not be recorded. The students should know that this work station is for practice, not for grades. The student can see what he is doing wrong, become familiar with the grading procedures, learn proper techniques of requesting supplies, etc., before starting the next week on a work station for grades. This practice period also helps eliminate the fears that the student may have developed. At the last rotation period of the school year, the student is again given this practice work station as a regular station for grades.

Miscellaneous. Other topics to be discussed include proper dress and grooming, attendance, payroll procedures and forms, supplies, break periods, etc. Additional subjects can be introduced at this time or at a later date. It is best not to spend so much time that the student becomes bored. It is suggested that the student be permitted to start on work stations as soon as possible and then introduce additional topics as the year progresses.

SUMMARY

As already stated, the intensive business office laboratory program, as nearly as possible, must duplicate an office in *responsibility* and *equipment*, but it cannot be a simulation of an office. The employment area will determine whether the laboratory or the cooperative program should be utilized in a school. If a student cannot be sent out to work in a "live" situation, create the "live" situation in the school.

A sound intensive business office laboratory program should have:

1. A statement of a career objective for each student
2. A vocationally competent and experienced coordinator
3. A basic training program completed for the student before he is permitted to enter the laboratory program
4. A basic pattern of individualized instruction
5. A block of two or three hours
6. An individual training plan for each student with prepared work-station materials related to each business or occupation found in the employment area
7. A set of work-station materials for each business in the employment area
8. A set of manuals for the functional stations that cause the laboratory to function as an office
9. An advisory committee to serve as consultants
10. A survey of the employment area to identify occupations, employment needs, equipment, job standards, etc.
11. A "live" office atmosphere in the laboratory
12. An individual work area for each student
13. An evaluation procedures comparable to those used in a real office.

Who benefits from the intensive business office laboratory?

1. *Student*
   - a. Gains credit toward graduation
   - b. Develops good work attitudes
   - c. Becomes vocationally competent and an employable office worker
   - d. Develops confidence through actual office situations while still in school
   - e. Is prepared for immediate and gainful employment upon graduation.
2. *School*
   - a. Develops better school-business relations
   - b. Utilizes current business knowledge in designing its programs
   - c. Gains prestige and recognition in the community
   - d. Gains the support of state and federal agencies.
3. *Employer*
   - a. Realizes a good supply of full- and part-time office personnel
   - b. Draws from young office workers trained for work in their community
   - c. Gains insights and understanding of school programs
   - d. Realizes a reduction of training costs and labor turnover.

Through this capstone program, all business courses are brought together for the finishing touch. The laboratory is not divided into typewriting, shorthand, and business machines—all of this was accomplished before. Now is the application. This program is not a rotation from a machine to a machine but a rotation from an actual office to another, utilizing actual business projects. The materials, equipment, pressures, and grading standards are the businessman's. The teacher is no longer a teacher, but an employer and businessman. Students are no longer students, but now employees.

Section V

POSTSECONDARY PROGRAMS

CHAPTER 19

Junior and Community Colleges

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During the decade of the 1960's, the growth of community colleges, both in size and numbers, was only slightly short of fantastic. Recommendations from experts in American higher education include planning for additional growth in the seventies that will be almost as spectacular.

Business education programs have been and will continue to be a major area in all community colleges, and in many cases, these programs have grown even faster than the college as a whole. This rapid growth has created many problems in organizational structure and curriculum development. For expediency, courses and curriculums have been established much like their counterparts at the secondary school level or senior college and university level, depending upon the background of the curriculum developers. But one of the objectives of community colleges is to provide educational opportunities not offered by other public educational institutions within commuting distance. Mere transplant of curriculums, courses, and methodology will not completely reach that objective.

The last half of the past decade produced some general trends in both community colleges and vocational education that affected business education departments. One of these trends was an increase in the number of advisory committees and a clear definition of their appropriate functions. Course content has changed significantly in many community college business departments because advisory committees, rather than textbooks, have been used to determine the needed input. These committees, made up of community businessmen and women, meet more frequently than in past years and bring

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with them objects and examples from the real employment world. They provide vital information to vocational business educators who are attempting to serve a wider variety of community needs.

A second trend is an increasing knowledge and awareness on the part of students of their own particular needs. Many students at the community college level are already working. They have specific needs because of present jobs or planned future jobs, and they have already discovered them. If the courses or the methodology are not relevant, students now are apt to point it out.

A third general trend is a gradual progress toward a state of maturity on the part of community colleges, their administrators, and their faculties. For the most part, community colleges are now self-directed. They know their communities and are becoming well aware of the educational needs within the area. This includes not only the individual needs of the adult population but also the needs for educational service to business and industrial organizations and other types of institutions.

Other general trends that affect community college business education could be noted; however, these three are used to set the stage for a discussion of a changing instructional methodology: local communities expect more from a mature institution of higher education, individual students have definite vocational objectives and want training that they can apply as soon as possible, and advisory committees are functioning partners helping to establish specifically the necessary outcomes of training.

CHANGING TECHNIQUES

Students in community colleges, and especially vocational students, are apparently willing to accept more responsibility for their own education. They wish to be, and will become, full partners in the educational process. In doing so, they will frequently question the relevancy of specific courses within a chosen curriculum. Those with definite goals want the shortest route to the beginning of a career. Many will forfeit, or at least delay, an associate degree if the curriculum calls for courses they determine to be either irrelevant or redundant. They will become participants rather than passive recipients of education. They will look to teachers to support them and guide them in their individual endeavors, but not as the only source of vital information. Students with less definite goals often want to survey the opportunities through a variety of courses. These students will request substitutions or a larger selection of electives.

Using learning objectives. Most students make initial course choices on the basis of catalog descriptions. These descriptions usually contain vaguely stated objectives or course content. More definitive statements of objectives are necessary for wise choices. Consequently, the determination of specific, clearly stated learning objectives will be an integral part of the changing methodology for the seventies.

Learning objectives will necessarily be stated in general terms for course descriptions. Course syllabi will go into more detail and should be readily available to students for decision-making purposes. However, the primary use for learning objectives will be with the individual units of study. These objectives, of course, should be concise, specific, and measurable. Students should have access to them prior to beginning any assignment. They should know what the desired outcomes of their efforts are. They should also be informed continually as to how these assignments or learning units are related to the real world of work.

Individualizing instruction. Individualized instruction is definitely the trend for the future, and community colleges, probably more than any other segment of American education, are fostering this trend. They have certain advantages that allow new methods to be proven or at least tried. There is not the regimentation in a community college that is found in secondary or elementary schools. There are also few, if any, deep-seated traditions such as those found in the older, four-year colleges and universities. Thus, the community college finds fewer roadblocks to innovations in teaching methodology.

Vocational business education at the community college level has been and will continue to be faced with many problems as it attempts to train and retrain great numbers of people for different levels of occupational competence in the shortest possible time. Only a few students who enter a program are totally untrained. Some need only to update or upgrade their skills. A typical community college business class will have one or two individuals at each extreme with the rest at various points in between.

Most of the students in any class will have some particular learning problem that will impede or prevent satisfactory achievement. These problems may be of a permanent type, such as a language barrier, reading deficiency, or lack of background knowledge. Quite frequently, however, the problems are temporary ones, such as illness, overtime work, or other out-of-class activities that legitimately consume time necessary for study in order to maintain pace with the group. If these problems, whether permanent or temporary, cannot be overcome sufficiently, the student will lack the necessary competence at the end of the course to satisfy vocational requirements or proceed to the next sequential course. In the absence of a fairly sophisticated individualized instruction system, the alternatives for such students are dropping out or repeating the same process that caused the original failure.

Students learn concepts and acquire skills at different rates even though they may have the same time commitments for them. Traditional classroom standards, methods, and grading systems do not allow room for these differences. Benjamin S. Bloom, professor of education at the University of Chicago, has charged that grading on the basis of the so-called "normal curve" will insure that only about one-third of a given class will approach anything that resembles mastery of the subject, when probably 95 percent are actually capable. Stated another way, it convinces a majority of students that they are capable of only "C" and "D" work. He suggests that individual differences should be used as a means of varying teaching techniques to insure success, rather than a means of determining who does best under competitive classroom conditions.

In addition to grading systems, there are other disadvantages of classroom methods that have been noticed by business educators for many years. Stolurow and West pointed out some of them at the beginning of the past decade when they stressed the need for greater efficiency in the conduct of instruction. Their criticism of group instruction is just as valid today as it was 10 years ago.

> MOTIVATION AND ATTENTION. One purpose of motivation is to secure the learner's attention. . . . How often can any live teacher guarantee that every student is indeed paying attention?
>
> MAKING THE IMPORTANT CUES PROMINENT. The particular thing to be learned is often swamped in the surrounding verbiage. What is required in instructional materials is that they be stripped of excess baggage so as to give adequate prominence to the important cues.
>
> CONTINUAL ACTIVE RESPONDING. The old phrase "learning by doing" must be taken seriously. The learner must be doing, acting, behaving. In addition to attending, he must be busily making other responses. Typically, however, instruction consists of a teacher talking to students. Much of classroom instruction allows the learner to be passive, let alone inattentive; whereas learning requires active responding by the learner.
>
> IMMEDIATE KNOWLEDGE OF RESULTS. Perhaps the most firmly established (but most often violated) of all requirements for learning is that of immediate "reinforcement" for response (in the form of "knowledge of results"). Under typical conditions "feedback" is often delayed (as when test papers are returned the next day or even later), and it is at best occasional rather than regular.
>
> PACING FOR INDIVIDUAL STUDENTS. We cannot alter the fact that people differ; nor would we wish to. However, with respect to the differences important for instruction . . . no live teacher can conceivably pace instruction at just the right rate for each learner individually; nor can he ever successfully identify and remedy the variety of weaknesses in background present in any group of students.[1]

However, recognizing that instructing every student individually is an objective worth considering and reaching that lofty goal are two different things. But at least there is evidence at many community colleges that attempts are being made to utilize new methods, materials, and technology to provide for individual differences. These attempts include programmed instruction, computer-assisted instruction, audio-tutorial teaching, and audio-visual-tutorial systems.

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[1] Stolurow, Lawrence M., and West, Leonard J. "Teaching Machines and Self-Instructional Programming." *Delta Pi Epsilon Journal* 3:24-25; April 1961.

PROGRAMMED INSTRUCTION

The use of programmed instruction in teaching business subjects at community colleges is growing steadily. Some of the programs are used in teaching machines, but more frequently the published programmed text provides the course information. This type of learning experience is presently being used in community colleges to teach such business subjects as typing, shorthand, accounting, marketing, business mathematics, data processing, and probably many others.

Basic to the programmed instructional unit is specifying the learning objective. The student knows before he starts what he is supposed to gain and also how he will prove that he has learned. During the unit, an active response is required to help get the student involved and thereby facilitate the learning process. At each step he is made aware of whether or not his response is correct. A correct response allows the student to proceed with the course, while an incorrect response requires a review at that point with the same or an alternate example. The intent is not to allow erroneous ideas or concepts to remain in the minds of the learners even overnight.

Although programmed learning has some very definite advantages for individualized instruction and has been a proven educational tool for some time, it is still too often used as an aid to the teacher rather than the student. It is more frequently used before class, in class, and after class, rather than instead of class. Its value as a self-paced learning technique is all but eliminated under conditions where each class member must take quizzes and tests on the same day.

COMPUTER-ASSISTED INSTRUCTION

Computers have been used very little in the instructional areas of community colleges, and it is doubtful that their use will increase significantly within the next decade. The cost of the computer is prohibitive in most instances, and the lack of a wide variety of programs available decreases the opportunity for immediate use. In effect, the programmed text does approximately the same thing, and the added advantages of computer-assisted instruction do not equal the additional cost at the present time.

Computer-augmented instruction is very definitely in the picture for the seventies, however. This method of computer use is designed to close the gap between the classroom and the outside world. Specific problems in accounting, marketing, and management have been programmed for computers so that business students may learn firsthand the techniques needed to supply input data and to analyze the output. This type of augmentation will undoubtedly be expanded, but it will still probably fall short of having complete courses taught by computers.

AUDIO-TUTORIAL INSTRUCTION

Audio-tutorial instruction was an innovation of the sixties, although it did not originate in a community college nor with business education. Nonetheless, its effectiveness in teaching many business subjects has been demonstrated at community colleges across the nation. The technique was originally designed by Samuel Postlethwait for a freshman botany course at Purdue University. Although slightly changed in practice since its appearance in 1961, audio-tutorial instruction has kept its primary objective of compensating for individual differences.

There are four primary ingredients of an audio-tutorial system: (1) a general assembly session, (2) a small assembly session, (3) an independent study session, and (4) a home study session. Variations in names and activities for these sessions are found, but most A-T systems include them in the structure.

The general assembly session is held once each week with a large group of students. Ordinarily all students in a course meet at the same time if a facility is available. Most groups are limited to a maximum of 100 to 120 students. The course instructor decides upon and directs the activities during the session, and activities include general announcements and directions, guest lectures, previews of the next week's work, movies, and in many cases, the regular mid-term and final examinations.

The small assembly sessions were originally designed to be discussion sessions, and the number of students was limited to 20 or 25. The sessions are conducted by the general assembly instructor or an assistant, but groups meet with the same instructor each week. Discussion, review, and enrichment are the objectives of this session, which indicates that no new material is presented. Field trips, shorter films, oral presentations by class members, problem analysis, and other small-group activities are included.

One of the primary functions of this session is to promote student discussions about various topics within the course. One technique used to stimulate discussion is a type of oral quiz, wherein each student is called upon to explain a concept or object as though he were teaching the other members of the group. Other students might add to his presentation, and each gets certain points on an evaluation scale depending on how well he performs. In some instances, this session is called an integrated quiz session.

The third part of an audio-tutorial system, and the one that is most unique in terms of traditional educational practices, is the independent study session. This session is held in a learning laboratory that is quite different from a typical classroom. These laboratories are equipped with individual learning carrels that have as minimum equipment audio tape players with earphones. More often than not, slide projectors are also provided in the carrels. This laboratory is open to students up to 70 hours a week in some cases, and instructors, or tutors, are available within or near the laboratory for individual assistance. Students may use these facilities at their convenience on an unscheduled basis.

Other features of the laboratory include supporting materials for the course or courses served such as displays, specimens, charts, single-concept films, books, and magazines. The audio tapes in the learning carrels present the lecture for a specific portion of the course and direct the student to use the other materials. The tapes are usually two- to three-hours in length and are changed weekly by instructors or technicians. Students are expected to complete the learning experiences outlined on the tape during the week, but not on one visitation. Individual differences in learning capacity are recognized by allowing students the time necessary for each of them to absorb the required knowledge independently.

The fourth part of the A-T system, the home study session, is the well-known homework assignment. Text reading, problem solving, and independent research are some of the usual assignments. Typically, the home study session involves individual study that does not require the materials or equipment of the learning laboratory.

The basic philosophy of the audio-tutorial system includes a belief that learning is an activity done *by* an individual and not *to* him. It provides for a differentiated teaching staff that includes a master teacher (the one accountable for the program), teaching assistant (tutors), and laboratory technicians. Students learn as much or more from this method in the same length of time, and cost savings to schools result from serving more students with less facilities and equipment.

AUDIO-VISUAL-TUTORIAL INSTRUCTION

The difference between the audio-tutorial and the audio-visual-tutorial system is not the apparent inclusion of visuals, since it has been indicated that the A-T system also makes extensive use of visual materials. The difference really is in the extent of individualization which necessitates a greater break from tradition with the AVT system. There are no required group meetings within the structure of AVT and, consequently, no arbitrarily established beginning or ending dates. Students can literally start a course on any working day of the year, progress at a pace they establish for themselves, and complete the course only when they have reached the required level of competence.

This particular type of system was first established in a community college where traditions have less foothold. It was first tried with the business subjects of office machines and typewriting. It utilizes the learning carrel, audiovisual equipment and materials, tutorial assistance, and individual evaluation. Courses can be adjusted on an individual basis for differences in prior education, planned or unexpected extracurricular activities, and the future goals of each student.

The primary objectives of the audio-visual-tutorial system are to:

1. Allow any student to enroll and begin a course on any working day of the year.
2. Permit each student to determine his own best time for study within the school day.
3. Provide each student with a course designed specifically for him, based upon his own goals and prior educational background.
4. Allow each student to progress at his own rate within the limits of his capabilities and/or other time commitments.
5. Make available to each student the individual assistance of a qualified instructor at any time during the course that this becomes necessary.
6. Permit each student to become successful at each stage of development before he moves to the next stage.
7. Provide a qualified instructor to evaluate the work of each student in his presence, privately and individually, immediately upon completion.
8. Allow any student the time required to reach minimum vocational competencies so long as progress is maintained.

Courses within an AVT system consist of an appropriate number of single-concept units to cover the required material, a problem or task to be completed for each unit, and a short quiz to measure understanding. In addition, each unit is accompanied by a list of learning objectives to make the student aware of what he should be able to demonstrate after completing the assignment. A pretest to measure prior background, several intermediate tests to measure progress and retention, and a posttest to measure final competencies complete the course materials.

When students enroll in courses taught with the AVT system, they first take a pretest. On the basis of this pretest, the students' occupational goals, and perhaps certain other background information, a separate program is constructed for each student from the units available. Initial units in accounting, typing, business mathematics, or other courses may be omitted if the student's high school courses provided him with the same information or skill. It makes no sense to require repetition unless it adds substantially to skills or abilities. The pretest might also point out that a student has insufficient background for a course, in which case some remedial work might be advisable. It is also pointless to urge a student to proceed with a course when, without the requisite background knowledge or skill, his chance for success is greatly reduced.

Once the pretest is evaluated and the proper units within the course prescribed for a student, he goes to the learning laboratory where the initial instruction for each unit is provided by audiovisual media. This may be in the form of a cartridged sound film or a set of slides with an accompanying cassette tape. Unlike the A-T system, the AVT units are short, varying from 5 to 15 minutes with an average of about 10. A student laboratory technician is employed to act as librarian for the materials, to assist beginning learners with the operation of equipment if necessary, and to make minor repairs to equipment or materials.

Independent study carrels are provided in which learners view and hear the instruction. Headphones help to reduce outside distractions and permit greater concentration. Most units require that the student actively perform some task along with the instruction. This active process of seeing, hearing, and doing for short periods of time enhances the learning of new concepts and skills. Usually a short quiz is provided for each unit in a student handbook with easily accessible answers so that learners can check their understanding as soon as the unit is completed.

Upon completion of the learning unit, students do a problem or practice assignment that relates directly to the material just covered. This provides immediate reinforcement of the concept or skill as well as a systematic review of previous learning. The work can be completed in the learning laboratory where qualified instructors are available to give tutorial assistance where necessary, or in courses where specific equipment is not required, it may be done as homework.

The final step in the completion of each learning unit is evaluation. The completed assignment is taken to an instructor in the learning laboratory for immediate feedback regarding the quality of the work, giving students the chance to recognize any faulty practices or erroneous concepts before they become deeply entrenched. This tutorial aspect of an AVT system is significant since every student gets the individual and undivided attention of the instructor as many times as there are units in the course.

Testing procedures within an AVT system require the greatest break from traditional thinking, but provide two specific advantages for students. First of all, a student is allowed to take his test individually as he is ready. There are no assigned dates for intermediate, midterm, or final tests. When the student completes the work up to a test unit, he is advised to take the test as soon as possible and with little or no review or "cramming." This procedure gives both the student and the instructor a more accurate picture of retention. Thus the system as well as the individual student is being tested. Most students would find it very difficult to give up a cramming session, which by this time in their academic career is a ritual, without specific safeguards against failure. The safeguard is provided by the AVT system in its second deviation from traditional testing philosophy. No student is allowed to fail a course or any test within the course. Established minimum standards must be reached at each check point throughout the course before students proceed. These standards are based on minimum vocational competencies which are usually represented by the traditional "C" grade; consequently, all students completing courses will have reached "A," "B," or "C" standards. Anytime a test is encountered and the results are less than standard, the students are required to review, redo certain assignments, and take an alternate test before proceeding. This process can be repeated if the results of the alternate test are unsatisfactory. Students are not "dragged along" through a course compounding failure, but are instead building a series of successes.

There are, of course, and will continue to be a small percentage of students who for some reason do not reach the established standards. Usually the fault can be traced to one or more aspects of the system, which (with perhaps some rationalization) absolves the student from most of the blame. In the first place, if the pretest measures background, it ought to show some hint of aptitude. And even though aptitude tests are less than completely reliable, the student could still be made aware of his chance for success in a course before he begins. Another, more common reason for insufficient progress is a lack of motivation on the part of the student. Most educators agree that the ability to motivate students to learn is the mark of a good teacher, and under the AVT system, which provides more opportunity to procrastinate, such motivation is the prime responsibility of laboratory instructors.

The foregoing description of an AVT system includes a differentiated teaching staff much like the A-T system. Education for more students can be provided in less space and with less equipment than in traditional classroom methods. It is possible to run several courses simultaneously in the same learning laboratory, which further reduces space requirements. The unscheduled or arranged-time basis of offering courses makes them available to many more students than is possible with classes that have to meet at a particular time each day. The AVT system did not come into use until 1967, but it should be very much a part of instructional methodology in community college business departments during the 1970's.

THE MULTISYSTEM APPROACH

There have been various methods of instruction mentioned and partially described in this chapter, each representing some type of "systems approach" to teaching. Programmed instruction, computer-assisted instruction, audio-tutorial instruction, and audio-visual-tutorial instruction all provide a system for education using various technologies. Each of these systems, however, seems to limit students to only one source of information. Although some systems employ various types of media, students must get particular parts of the instruction from only one source with apparently no choice of which one.

Neil Postman of New York University discussed some interesting ideas for the new technology as he was questioning the legitimacy of measuring intelligence by the ability to read. His remarks lend support to those who are attempting to build instructional systems that rely less on the ability to read well and more on the ability to think and reason and perform.

> What would happen if our schools took the drastic political step of trying to make the new technology the keystone of education? The thought will seem less romantic if you remember that the start of the Third Millenium is only 31 years away. No one knows, of course, what would happen, but I'd like to make a few guesses. In the first place, the physical environment would be entirely different from what it is now. The school would look something like an electric circus—arranged to accommodate TV cameras and monitors, film projectors, computers, audio and video tape machines, radio, and photographic and stereophonic equipment. As he is now provided with textbooks, each student would be provided with his own still-camera, 8 mm. camera, and tape cassette. The school library would contain books, of course, but at least as many films, records, video tapes, audio tapes, and computer programs. The major effort of the school would be to assist students in achieving what has been called "multimedia literacy." Therefore, speaking, film-making, picture-taking, televising, computer-programming, listening, perhaps even music playing, drawing, and dancing would be completely acceptable means of expressing intellectual interest and competence. They would certainly be given weight at least equal to reading and writing.
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> Since intelligence would be defined in a new way, a student's ability to create an idea would be at least as important as his ability to classify and remember the ideas of others. New evaluation procedures would come into being, and standardized tests—the final, desperate refuge of the print-bound bureaucrat—would disappear. Entirely new methods of instruction would evolve. In fact, schools might abandon the notion of teacher instruction altogether. Whatever disciplines lent themselves to packaged, lineal, and segmented presentation would be offered through a computerized and individualized program. And students could choose from a wide variety of such programs whatever they wished to learn about. This means, among other things, that teachers would have to stop acting like teachers and find something useful to do, like, for instance, helping young people to resolve some of their more wrenching emotional problems.[2]

It is interesting to project these ideas into the teaching of business subjects at the community college. What would happen if students had a choice of media to learn a particularly difficult concept in marketing or accounting, such as cash-flow analysis? If they were able to choose from different presentations such as the straightforward textbook, the stepped programmed instruction, a computerized program, an audio-tape narration, a slide-tape unit, or a real or animated film, the most difficult concept for a teacher to put across in the classroom might be amazingly easy for students to learn. This is to say that different individuals learn best by different media and methodology, and if the right combinations are available, the student heretofore considered "dull" might be surprisingly intelligent.

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[2] Postman, Neil, "The Politics of Reading." *Harvard Education Review* 40:250-51; May 1970.

THE EDUCATIONAL CLINIC

Expanding the idea of multisystems and including the professional abilities of teachers, a look into the crystal ball reveals some very exciting possibilities for business education at the community college level. If it is agreed that community colleges serve a wide range of people in terms of age, background, needs, and abilities, then a form begins to take shape through the haze. If it is further agreed that each of the people served has separate problems with learning such as what and how much to learn and how best to accumulate the necessary knowledge and skills, then the form becomes recognizable as a building. If it is still further agreed that business educators have the ability to use the new technology and to develop methodology to help each of these students develop to his maximum capability, then the building is clearly seen as a little red brick schoolhouse. But this old-fashioned educational building has a very modern sign over the door that reads, "Business Education Clinic." Through the door can be seen four distinct areas of specialization: diagnosis, prescription, treatment, and evaluation.

The first "visions" of this little red schoolhouse reveal that it has been remodeled inside and the activities are somewhat analogous to some well known medical clinics. It is also noticed that people, young and old, are entering and leaving individually, not as groups. This might be because each has a personal educational problem, much as people have individual medical problems or ailments. Their first stop is at the area called "diagnosis."

Diagnosis. The receptionist greets each person entering (with the standard gracious smile) and asks him questions, the answers to which are recorded on a form. These questions are related to the symptoms of the problem, like: "I just lost my third job in a year because of inefficiency," or "I have twice been passed by for a promotion," or "I need a job, but I can't pass employment tests." The interview is short and the receptionist calls a clinician who invites the person into his office.

This clinician may have a limited background in educational methods, but he is an expert on what is expected of employees in specific occupations. He knows firsthand what employment tests are given and how they relate to the various jobs in area businesses. He also knows what traits are sought for promotion in each business, as well as the skills and knowledge necessary for each level of employment. He spends three days a week in the "clinic" and the other two in research. He conducts and supervises job and task analysis studies in all area businesses that have employees whose work relates to his specialties. After seeking the answers to several questions related to the goals of the individual, this clinician schedules the "patient" for one or more tests to determine the present state of his educational "health."

Prescription. The next stop for each person is in the prescription area, where with the aid of a computer, the diagnostician's report of needed achievement and the test results indicating present status have already been received. The professional in this area is an expert in learning theory and teaching methodology. He knows how most people learn best and can quickly determine the best method and media for each individual based on the type of learning that is necessary. With the needs defined, there is a brief consultation and perhaps another short test or two. A prescription is then written which describes the exact lessons to be taken and the method and media for each.

Treatment. The treatment area contains a wide variety of programs and individual learning units. The new technology is plainly evident, including several items of equipment and gadgetry that are yet unnamed as of the present date. There are both professionals and technicians in educational therapy who are moving among the learners answering questions and offering advice and encouragement. Some of the learners come to this area daily, others only one or two days a week to get their "prescriptions" filled. Some spend weeks or months in order to cure educational "ills," while others need only one or a few visits. Each is being provided the precise program needed, in the correct maximum dosage and from the most effective medium, to solve his specific educational problem in the shortest possible time.

Evaluation. The evaluation process actually starts in the "treatment" area with intermediate tests of various types to measure progress. Other types of tests are administered in the "evaluation" area when the "therapist" feels that the treatment has sufficiently overcome the problem. The expert in evaluation has many of the same qualifications as the diagnostician and frequently serves in a dual role. When the learner has satisfied the requirements of evaluation he is sent out to, or back to, the job. Depending on the type of original problem and the extent of treatment necessary, he may be requested to return to the clinic periodically for a "checkup."

The concept of prescription education is not futuristic. It is part of the here and now. It is presently being implemented to a limited extent in business education at many community colleges. Methods and procedures have already been developed and tested which, by utilizing the new technology, can provide better education on an individual basis for more students in less time and in less space than traditional classroom methods. The concepts of individualized instruction and mass education are no longer mutually exclusive.

CHAPTER 20

Independent Business Schools

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In past years, private schools placed vocational business and office education emphasis on the traditional shorthand-typewriting-bookkeeping skills. The curriculum emphasis of today, however, must be much broader, although we have to admit that there are still thousands of lower-level beginning clerical and stenographic jobs opening every year. The following short outline will indicate some of the areas where today's jobs are found and where today's business school training should take place.

1. Skill areas. Typewriting, shorthand, and bookkeeping/recordkeeping are still offered. For most graduates, these are the job-entry areas; for some, career positions. But whatever the tenure involved, sufficient courses must be offered so that beginning workers are well-prepared in these fields, because more positions are open in these skills than anywhere else.

2. Electronic data processing. Although business schools have to be very careful about training in this employment area (jobs for beginning workers are not as plentiful as once believed), the fact remains that they must be involved. Two emphases are important: (1) every beginning office (or related) worker should have some concept of the place of EDP in the office, and (2) some business schools should offer career training in EDP so well-qualified students will be able to prepare themselves as EDP operators or as computer programmers (to be sure, the beginning worker usually finds his first job as a programmer trainee, apprentice programmer, operator, or some similar beginning position).

3. Marketing. The term *marketing* is used here in its broadest sense: sales, advertising, purchasing, retailing, marketing management, buying (in the retailing sense), and similar job positions. A large number of positions open yearly, and

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advancement and potential monetary rewards are both very good. It is in this general area that not enough training has been offered. Many persons enter the marketing areas without any—at least, without sufficient—formal training.

4. Combination areas. There are many combination job areas that should be studied and to which young people should be directed. Without giving time to discussions, the list includes such areas as: agriculture/business; business/medical back-up (medical assistant, dental assistant, medical librarian, etc.); business/travel-entertainment; hospitality industry (hotel, motel, restaurant industries); business/drafting; business/engineering technicians; business/law (particularly the new field of legal clerks); and personal/business.

What is the influence of government? As time goes on, the mounting influence of our various forms of government—local, state, federal—on our lives is obvious. Regulation is becoming more pronounced, quite visible in such new fields as consumer protection, ecology, and health services.

Since the early years of this century almost everyone has had the problem of federal income tax and (more recently) the income taxes of almost all 50 states. Added to that are the various property, school, luxury, entertainment, sales, transportation, and other taxes. Not to be forgotten, of course, are the many forms of social security taxes.

Social reform is still another area in which our various governmental offices are involved. The social security taxes mentioned above are perhaps a duplication of this area, but the social reforms involve much more than just taking care of the aged or disabled or indigent. Social reform might also include some of the regulatory agencies, referred to above. But social reform seems to be an area unto itself in which special positions in business skills are necessary and towards which we should be preparing employees. Finally, there are the service areas of government that are separate from anything mentioned previously and that require many office workers: police and fire departments, the forestry service, hospitals, schools, courts.

The influences of government, then, are great. The business schools have a responsibility to prepare citizens for positions in government at all levels and in all career areas. It would appear that there will continue to be more demands as the country's current emphasis on "doing things for the public" continues.

Will unions have a greater influence on office workers? Because office workers are being unionized in growing numbers, the business school must give some attention to this part of the economy. Several questions have to be asked—and, perhaps, answered. One of these involves the basic question of "To be, or not to be?" A student cannot fully answer this question unless he understands the basic facts of unionism, the history of the union movement, his own place in the union, the trends in American business.

Still another question is whether or not the office worker truly belongs in the trade union movement. The fact that unionism among office workers is growing is an indication that many do believe in it and its place in the family of office workers. At least one pertinent question involves the question as to whether unions should have the opportunity to secure and use confidential information which is obviously available to many office workers.

What about social problems and office workers? In earlier paragraphs in this section some reference was made to governmental offices and to certain social problems that in one way or another involved workers who could be prepared by independent business schools. It would truly seem that we have a responsibility here—not just to prepare workers for the offices involved, but to give the students some background into the concepts involved. Some of the concepts are traditional: they have been with us for some time. But a few, such as the partial list here, are comparatively new: aid to the disadvantaged—economic, cultural, ethnic, mental, etc.; consumerism; drugs; ecology; ethics; health, and women's liberation.

Where should vocational education be placed: secondary or postsecondary? With the current emphasis on public vocational education (the independent business, trade, and technical schools have been involved in proprietary vocational education for centuries), some people of the business schools are prone to believe that secondary schools should change their traditional curriculum and provide almost nothing but vocational training for certain students. To some, this would mean a discontinuance of some general education courses "because it is these courses that turn a student against school; it is these courses which cause the current high dropout rate; it is these courses which are not realistic to the student."

Perhaps. But private schools kid themselves (and, more tragically, the student) when they go to the extreme of substituting for fundamentals. It is certain that not everyone needs to study Shakespeare, but it is equally certain that everyone needs to know how to communicate effectively, and there are no substitutes for the communicative skills of writing, speaking, listening. The mechanic or stock boy or clerk-typist needs to communicate properly as much as does the attorney or dentist, although the specifics may be somewhat different. It is also certain that not everyone needs to know algebra and geometry, but every high school graduate should know basic arithmetic and consumer mathematics as an everyday tool. Later, the carpenter or draftsman will need to know a specific kind of applied mathematics, as will the shipping clerk or automotive parts clerk.

The point to be emphasized here, then, is that the secondary school can and should be the entry ground for certain elementary vocational training, but the advanced work, the area for growth and personal maturity, the educational level for high-skill development, should be taught in the postsecondary institution. If the high school can provide the necessary basics, the postsecondary schools including the independent business school can turn out the finished product.

Some would suggest that vocational training in the high school is necessary because that sort of curriculum will help to prevent dropouts. A realistic and honest look at that theory proves that it is full of wishful thinking. Even with the millions and millions of dollars that have been poured into vocational education on the high school level, the fact remains that the desired job just isn't being done. Part of the fault lies in our lack of understanding of the physiological immaturity of the student; some in unrealistic teaching procedures and an impractical curriculum; and some with improper guidance procedures and improper communications between the school, the student, the parent, and the public.

In other words, dropouts are still a major problem despite the large sums of money which have been spent to retain the student in high school until graduation. What is needed is a more realistic general education program that will equip the individual with basic skills so he can meet normal adult responsibilities. Then, and with the proper and realistic general education program, must come exploratory and introductory courses which will allow the student to select a career area while he is in high school so that he can pursue proper vocational preparation afterwards.

A final thought here is that our economy needs better educated workers because of several major and important changes. (1) American business and industry has improved its procedures so dramatically, through plant automation and office electronic data processing, that the work force is changing. In turn, automation and EDP have decreased the number of job openings in a few industries. Workers, in certain jobs, must be better educated than ever before. (2) Our present—and what we hope will be a continued—emphasis on social concerns means that workers need to have a better understanding of our social order. Ecology, for example, is a fad to some, but many of us hope that the fad will turn to a permanent institution in American life. And ecology requires a proper understanding of the world around us which goes far past the picking up of cans and bottles along highways or the banning of campers in certain National Park areas. The teaching of practical science in the high schools can help hold student interest until graduation—not to mention the fact that science can help the individual make the world a better place in which to live. (3) The American social order has traditionally been taught through such courses as history, civics, current events, and government. Efforts were sincere, though somewhat misdirected. Social studies should still include American history so that students will know how their country has advanced, but social studies should include much more about the responsibility of the individual toward making the country survive. A high school dropout will not learn that, nor will the student who continues in school under a traditional curriculum. The mounting relief roles, the increasing civic disturbances, the changing attitudes toward quality of goods and services are all indications of a need for more education in economic responsibility that is tied to a historical perspective. An interesting, effective approach to general and consumer economics is a secondary school must.

Summary. There is little doubt that the independent business school, as well as other postsecondary institutions, needs to meet the various emerging changes that confront all American institutions educational and otherwise. So far as the business schools are concerned, the major emphasis is to prepare individuals for careers in business, industry, government.

Concurrent with that vocational business training, however, is the need to give students an insight into the responsibilities of American citizenship. This vocational education must include something in the general education area so that ethics, responsibility, appreciation of the American democratic form of government, a knowledge of the free-enterprise system, and similar social and economic understandings can be acquired and carried into a later working and home life.

METHODOLOGY IN THE BUSINESS SCHOOLS

General areas of methodology. In almost all schools one can find the lecture method of teaching being used, and the independent business schools are no exception. But as individual progress is stressed in so many of our schools, one is certain to find an increased use of certain more modern methods that supplement (although not always replace) the traditional.

Electronic classroom devices. Electronic laboratories are commonly used in certain stenographic and typewriting classes. With multiple-channel listening stations available for such classrooms, the teacher is able to direct several types of drill or practice material into any classroom situation, thus providing for the individual instruction which is so important. As both reel-type and cassette-type systems have been available for stenographic instruction for several years, there is little need to offer detailed descriptions of methodology.

Several different types of instruction in typewriting are now available, and in some instances typewriting skills are taught in from 12 to 20 hours. (Obviously, additional instruction is needed for those who desire to go into careers where the typewriter is a basic tool, but elementary typewriting skills are sufficient for other jobs.) There is little doubt, however, that more will be done in individualized typewriting instruction, through the use of electronic equipment, in the next few years.

Audiovisual devices. The use of audiovisual devices is not new either. Some current usages are described here.

> Film loops provide detailed instruction in a certain phase of a skill or technique, presenting the learning experience over and over until the student perfects the concept or technique.
>
> Microteaching is the use of video tapes to show a student how he performed a particular task. Here, the student performs before the camera,

and the video tape is then played back so the student can see his good and bad points. The technique can also be used to aid groups in evaluating the performance of others.

ETV is the use of video tapes to aid in instruction. In most instances the video tape would not be used for the entire class period, but for a short period of time only. In effect, it would supplement the instruction of the teacher. Obviously, it could also be used for review work or for individual study, but it does not take the place of the teacher.

Cassettes are a more recent innovation in the use of sound-taped materials. The tape cassette is a self-contained unit, usually of a standardized size and speed, which can be played on almost any type of commercial player. Cassettes can be used in steno labs or checked out and used at the student's home or dormitory room. One finds these tapes quite often in shorthand dictation, but cassette-recorded materials can be found in almost any academic course, including those in the business administration areas. One point to emphasize is the fact that the cassettes are almost foolproof. Even an inexperienced operator finds it difficult to tear or erase a prerecorded cassette tape.

Self-contained sound and picture projectors, another form of cassette, are found in a new type of projector where the sound tape and the film tape are in a cassette which fits into a table-top size projector. A good many of these instructional units are currently being manufactured, and the material can be used for initial instruction or for individual study or review. Again, the instruction is in short units and is usually used to supplement a lecture or laboratory situation.

Simulated work experience. Although simulation has been with us for many years in the form of office practice classes and practice sets in a variety of subjects, we have had new forms of simulation in recent years. In the past our simulation has been highly individualized (as in the form of practice sets), but new materials lend themselves to office situations where there is interaction among students who, for example, operate an office in which members of the class perform specific functions: receptionist, office manager, purchasing agent, secretary, bookkeeping, file clerk, and so forth.

Another simulation type of experience is the "in-basket" activity which can be used in office procedures classes. In this activity the student is given a set of materials on which to work. The student first determines the priority of the tasks (there may be as many as 20 activities in a unit, and the total time may extend over several class periods) and then performs the various tasks. He is graded on his priority determinations and the quality and speed of his work. The name comes from the action of the worker in the office who, on coming to work in the morning, reaches into his IN basket and removes the materials that have been deposited there by his supervisor and messengers.

Other forms of simulated work experience found in classes in today's schools include such tried-and-true methods as the traditional practice set, case studies, role-playing, and school work-experience. All of these, and more, help make classes more interesting and meaningful.

Programmed learning. Of special importance to business schools and the concept of individual progress is the programmed textbook. The concept is not new, but programmed books in business subject areas are not too common. Important, too, is the need for teachers to know how to use them, for the idea is not to just hand a student a book and say, "Here is your textbook. When you finish it, come back and I'll give you something else to do."

Programmed textbooks, which can be used in business schools, are now available in English (some in such specialized areas as punctuation), business mathematics, EDP, accounting, and filing. In addition, some programmed materials are available in audiovisual publications so the student can see and learn on his own. Programmed pacers, of the tachistoscope type, are available from several firms and include instruction in fields such as filing, business mathematics, ten-key adders, and the like.

A caution must be voiced again. The business schools have found that programmed learning is good if it is directed by a teacher who understands it and provides the student with individualized instruction so he can learn with the maximum amount of speed and individuality. Programmed learning does not take the place of the teacher.

Micro-units. Still another type of generalized improvement in methods, which applies to almost all areas of instruction, is that of dividing the course into small units. A variation of the project method, the budget, or some of the other teaching plans, the micro-unit will divide the semester or quarter course into easily performed units of just a few hours each. The student is able to complete the materials at his own speed. Frequent tests are given so progress and understanding can be determined. The student cannot proceed to the next unit unless he has the instructor's permission and has had all of his work, including the tests, checked. Meaningful repetition provides necessary review and reinforcement.

One caution: the units are not equal in length. Students can spend as much time as necessary on any particular unit, but guidelines are established and the student is given much individual attention. A prime factor involved is that the student is building his skill or knowledge in a logical sequence but can complete the subject away from the lockstep type of instruction that is too common in our public schools. Most good students like the plan and ask for it; the average and poorer students do not object—in fact, the poorer students often like it because no one really knows that they are not up to the others.

Special areas—accounting. For purposes of illustrating individuality in vocational education in accounting, the following terminology will be used: top program—professional accounting, intermediate program—general accounting, and opening level program—accounting assistant.

Many of the students who enroll in independent business schools, with the objective of majoring in accounting, do so because they do not understand accounting and its function in business. John Locke once said, "Accounting is more a matter of logic than of arithmetic," and not everyone is a logical thinker.

"Step down" programs are therefore in order. Should the student who enrolls in professional accounting not be able to complete the program successfully, he can be "stepped down" to the general accounting program. The difference is that the professional accounting program heavily emphasizes accounting and its allied skills (such as administrative management, communication skills, a basic knowledge of EDP, etc.), whereas general accounting includes a knowledge of accounting but also involves some peripheral subjects, usually in the clerical areas. The next "step down" can be found between the general accounting program and the accounting assistant program. In the latter, the obvious emphasis is placed upon clerical duties, with recordkeeping being the major instruction in the general areas of accounting.

As in all business programs in the independent business schools, the concept is to help every student successfully complete a program so he can enter the job market at a level at which he is capable of performing successfully. A failure helps no one: not the student, not the school, not society.

Special textbooks are being developed, too. There was a time when most accounting teachers believed that "accounting was accounting" and no matter what your job you should have the same basic instruction. In other words, the prospective accountant, stenographer, manager, EDP specialist, or clerical worker studied from the same text and (supposedly) with the same degree of comprehension.

That concept is no longer highly regarded. Specialized skills are needed by the EDP specialist who needs to know how data processing can help the accountant, the manager, and the investor obtain more and better information. Specialized skills are needed too by the secretary who may work in the office of a dentist or medical doctor and who keeps records of patients, performs certain daily cash and banking activities, and maintains certain records for the accountant who actually does the accounting for her employer. In that case, the secretary needs to know only certain recordkeeping functions, for the actual accounting is too sophisticated to be entrusted to anyone other than a professional accountant. The same reasoning for specialized texts can be applied to the worker who will go into management functions, into a retailing position, or into any one of a number of other specialized business occupations.

An area of importance here, which affects methods because of the lack of a program in most business schools, is that of preparing accountants for the examination for Certified Public Accountants. In other years, the private business schools of this country were a prime source of supply of men and women who entered the public accounting field. Thousands of the graduates of business schools passed the CPA examination and attained positions of responsibility and leadership within their communities. One by one, however, the various states, under the direction and leadership of the American Institute of Certified Public Accountants and the state societies, have passed laws restricting the examination to those who have earned a baccalaureate degree. Approximately two-thirds of the states now have such laws, and it is probably just a matter of time until all states will have them.

An injustice? Perhaps. But one cannot go about jousting with windmills, so business schools must turn to other fields. Many of their graduates still enter public accounting, some as employees of CPA firms and others as independent public accountants. In fact, several states have examinations for public accountants that are based on a somewhat different level from the uniform examination for Certified Public Accountant. Others enter commercial accounting or governmental accounting.

The change in method, then, has come about because of the change in emphasis. No longer is the instruction highly oriented toward the person who may someday want to sit for the CPA examination. Instead, the instruction is frequently directed toward the person who will enter at another level, have another career purpose, and be in the school for a shorter period of time.

The one additional change in accounting instruction in business schools involves the area of governmental accounting and the positions therein. With the current emphasis on social needs and assistance that is so prevalent in our country today, there are many positions in governmental accounting which must be filled. Many of these jobs actually involve the traditional areas of revenues, disbursements, apportionments, funding, taxation, and so forth. Other positions involve auditing skills. Some involve applications for governmental funds, including the preparation of reports that involve communication skills of a high level. Many business schools have turned to this area of our economy for placement of their graduates who have, by intent, been trained for work in this sector. The emphasis is new, with specialized accounting instruction being offered and specialized placement being the result.

Special areas secretarial. Years ago business schools enrolled students whose express purpose was to become "secretaries." No one tried to define the occupation in technical terms, and standards were sufficiently high so that graduates of the schools quickly and easily found positions. Then came the era of specialization: medical secretaries, legal secretaries, airline secretaries, "executive" secretaries, and so forth.

Today, business schools are turning back to the original concept of preparing all secretaries well, giving them some background in several specialties, and then showing them how to build professional and technical vocabularies *after* they get on the job. This idea works well, for the prospective secretaries have had some instruction in several areas of specialized transcription. In addition, graduates usually have no real assurance that they will go to work in a particular firm or office. So, by giving a broad education, and by giving students information as to how to build a technical vocabulary and how to do home study through the use of records or tapes, the business school is performing an even better function.

With the current high recognition being given to the professional designation, Certified Professional Secretary, business schools have turned their attention toward recognition by the Institute for Certifying Secretaries, the organization which prepares the CPS examination. This recognition was accorded at the annual meeting of the Institute in 1970 and was published in 1971. The Institute now recognizes the education taken by secretaries who have attended private business schools and equates it on a prepared rating scale along with training taken at other educational institutions. As a result, many of the forward-looking business schools are now preparing their curriculums so that high-level students will enroll in courses that will help them, along with proper work experience, to qualify for the CPS examination.

Types of stenographic systems, other than symbol shorthand, are also being stressed in certain business schools. Most authorities in shorthand agree that a symbol system is ultimately faster than an alphabetic system. Most of them also agree that a person can learn an alphabetic system more rapidly and that the alphabetic system (correctly learned) can equip a person for a beginning position as a stenographer or secretary. So, alphabetic systems are quite popular in business schools because the student is usually in the school for only a short period of time.

For those who want to become conference or court reporters, there are several systems which are commonly used in business schools. One is the machine system which one frequently sees in television news programs, in films and TV entertainment, and in conferences and hearings and courtrooms when one can attend such places. Very few individuals can learn to take any dictation at the speeds required for court or conference reporting, but those who begin such a program and who only attain machine speeds of from 100 to 150 words per minute can easily secure secretarial jobs in business, government, and industry. That training, then, is not wasted if the individual does not attain the required high court and conference speeds. Still another factor in the machine shorthand systems is that the machine seems to attract men into the program, whereas manual shorthand does not.

A type of voicewriting machine is another device used in court and conference reporting and in office secretarial work as well. In this system the secretary or reporter repeats, into a soundproof mask, what the speaker has said. The dictator does not hear the individual repeating what is said so he (supposedly) is not bothered. The material is dictated on a tape recorder which is held in the lap of the reporter and is later transcribed.

One can ask why this system is used or how it differs from a traditional tape recorder. The answer is that in conference or court reporting the transcriber may have difficulty in differentiating between voices on a tape, whereas this "mask" reporter will be able to give the names of the individuals speaking as those individuals become involved.

Still one more advantage of the system is that it is learned more quickly than either the manual or the machine shorthand systems. The federal government now accepts this system in Civil Service positions, and several states are reported to have also recognized the system as being valid for most secretarial and reporting positions. In some instances, the military has also installed schools for the learning of the skill. Transcription is done in a manner similar to that of any machine transcription.

Final mention of shorthand or dictation systems has to include the instruction on transcribing machines. This skill is not new, but most business schools recognize the need of having every prospective stenographer or secretary acquire good skills in the use of transcribing machines. For those who cannot learn a shorthand system, the transcribing machine can provide employment skills. But, even for those who do know a shorthand system, the machine transcription skill is important.

The steno lab has already been discussed, so there is no need to mention it again here. The point will just be made that the steno lab enables the student to proceed at a much faster rate and provides the possibility of individualized instruction. The lab is more effective than personalized dictation for several reasons: most tapes have been recorded by experts and the timing is almost perfect; with tapes and several channels there is the possibility of several types of dictation going on at the same time, the amount depending only upon the number of channels available; with specialized dictation, the pronunciation of technical terms is more nearly correct than when the dictation is done by a person from outside that industry.

A final mention of dictation lab method must be included here. For the most part, dictation tapes, whether for reel or cassette machines, have been scientifically prepared to include the correct syllable count, most used words, common phrases, precise grammar, and so forth. The secretary seldom finds (if ever) all of these things in the dictation taken in the office

Some forward-looking business schools have prepared tapes, based on "office style dictation," that can be used in advanced transcription classes. Dictation is not perfect. The dictator, for example, might well be talking with a cigar in his mouth, or the dictator gives general dictation with certain information to be searched out and added by the secretary. In fact, most of the dictation has little similarity to the perfectly graded and composed dictation now found on tapes and records. Incidentally, the students make better secretaries because of the new materials.

Special areas—electronic data processing. When one talks about methods in electronic data processing, placement possibilities must also be mentioned. The facts about the expansion of computer usage are easy to believe—the evidence is there. The facts about employment within the industry, however, and the annual number of new jobs for programmers and other EDP specialists are debatable. The recent recession in our economy and the resulting profit-improvement programs have shown that EDP installations could get by with fewer employees than previously thought. In fact, some business firms even decided that they really did not need a computer installation at all!

All schools, then, public and private alike, should restructure their curriculums to provide for what is best in data processing education. One of the first places to begin is in the area of admissions. Entrance standards should be very high. Another factor to consider is that schools should provide a curriculum that allows the EDP specialist a second area of employment and knowledge. This point is particularly important for the EDP specialist should be able to correlate his preferred area with accounting, retailing, drafting, or some other field where EDP and the specialty area are compatible. The second area of knowledge offers two plus factors: (1) the graduate has a second area of employment to enter in case his efforts to find a position in data processing are not fruitful; and (2) if the graduate does find a position in data processing, his second area of knowledge will make him an even more valuable employee because of his knowledge of that second field.

The above paragraphs, then, get involved in methods because the EDP training allows the student (and requires the school) to integrate the subject matter for maximum value to the student and to his future employer. Integration takes place, of course, in a traditional course taken by most students in most business schools—that is, in the correct use of the case study in which EDP equipment is used to help solve the course. Integration should also take place in the combination of EDP with subject-matter areas such as accounting, finance, marketing, economics, statistics, personnel management, and others.

The philosophy of the school regarding the teaching of EDP becomes apparent when one observes the teaching of programming skills. Some of the less desirable schools have no equipment available and do not run any student programs on any computer. The student, then, never finds out if his programs are valid, how much debugging they need, or if they are practical. He never learns to be an operator. He does not know what buttons, levers, or switches to use; how to load information into machines; how to locate errors; how to instruct the machine; how to make shortcuts; how to use technical manuals.

The philosophy of the school becomes even more apparent when one looks at the programming languages that are taught, how many and how complicated the written programs are, and the content of the problems which are programmed. Many authorities agree that instruction, for business purposes, is a *must* in three languages: Report Program Generator (RPG), Assembler Language (AL or B (Basic) AL), and Common Business Oriented Language (COBOL). Of coming importance is Programmer Language/1 (PL/1), which at this writing is specifically for and by IBM, but which is being adapted by other computer manufacturers. Of lesser importance to business majors is Formula

Translating Language for Scientific Computations (FORTRAN) because the language is not widely used in business installations. Further, for those who have the mathematics background and who know the other languages, FORTRAN is quite easy to learn if the programmer finds it necessary to add the language to his repertoire.

The methodology of computer instruction, then, is that of beginning at the beginning (EDP concepts) with students who have clearly illustrated an aptitude for that field. Languages are then added to the concepts (which include logic, flow-charting, computer mathematics, types of hardware and software, etc.), with the student eventually moving into case studies, systems, and applications. Computer operations are learned along the way as the student perfects his programming skills. Hands-on experience is not absolutely necessary, although it certainly does help the student, and it does add credibility to the educational program. If the student has the ability and background to learn the skill as an aid to management decisions, he is that much better off.

Special areas marketing. Probably the one area which private business schools have not developed to its potential is the area of marketing. Here the term is defined in its broadest sense to include advertising, sales, purchasing, marketing management, retailing, plant selection, consumer education, retail buying, and personnel. There is no attempt to restrict the term to the common interpretation of sales jobs.

Opportunities in marketing are great and perhaps allow the young graduate the opportunity for almost unlimited economic and personal success. The field is one of our last open frontiers—open to almost anyone without any restrictions based on education or financial backing or similar qualifications.

Methodology really hasn't changed much during the years, for the best way to learn marketing techniques is to obtain actual work experience (a variation of the apprenticeship training of yesteryear). Under correct work-experience programs, organized or unorganized, the student can gain actual experience and be graded by his supervisors or coordinators so that he can grow on the job. If he is on a commission basis in sales, for example, he learns even more quickly because his income is based on doing the job well, not on the learning he has when he makes an error. Or, his window displays or newspaper ads which do not draw customers reflect very quickly on the earning power of his associates.

One of the newer areas, although to be sure it has been around for several years, is that of fashion merchandising. The independent business schools have done a good job in preparing young men and women for careers in the fashion industry, particularly for careers in retail stores. In most business schools the fashion merchandising courses give training in all of the fields of marketing as described in this chapter—not just sales work, but work in diversified areas so that management positions can often be attained after but a few years of experience in the establishment. Some of the best teaching methods can be observed in these classes: microteaching, field trips, hands-on experience in many areas, work experience, and so forth. Most of the teachers have had actual experience in the fashion business, and the classes are alive and vital. Here, more than in almost any other area, we find real creativity in the classroom.

Special areas—personal improvement. Two areas of instruction peculiar to independent business schools and seldom found in other schools involve personal improvement. Specifically, these programs are directed toward helping the young person better adjust himself in a personal manner. The results, generally, have been outstanding and the "before" and "after" snapshots and self-evaluations give some proof to this feeling. This area involves the personal touch.

Several commercially prepared programs are available and are designed to help young people gain confidence, poise, and other aspects of personal adjustment. The women, for example, study weight control, hair styling, makeup, posture, correct techniques of walking and sitting, clothing styles, and similar aspects of a personal nature. The men study public speaking (not so much of the platform type as the kind of speaking needed for company presentations or selling), clothing styles, personal hygiene, table manners, social rules, and other aspects of personal improvement.

Employers are generally high in their praise of the improvement which can be seen as a result of these courses. Almost all business schools offer such courses, and secondary schools and some community colleges are making glances toward the area. The methods? Students learn by doing, with the use of video tape as in microteaching, before-and-after snapshots, personal criticism, and much group interaction. The teachers have to be outgoing, and they must have all of the personal attractiveness that they hope to promote in the students.

Special areas—reading for comprehension. Because of the importance of this area of study, it perhaps should have been listed first. It has been found by many schools, both in the public and the private sectors, that every student should have a course in reading improvement during the first weeks he is in school. This is perhaps a reflection on the public schools because so many students come to independent business schools unable to read well, particularly with regard to comprehension.

On the other hand, it could very well be that the independent business schools (and this could apply to trade and technical schools, area vocational schools, community colleges, and others) receive applications from the type of students who have not done well in reading in public schools. Business schools usually test the students at the beginning of the term, and those students who score well on a standardized test are often allowed to omit the reading course and substitute an approved elective for it. Here, again, is individualism in action.

It must be remembered that the course mentioned here is not a speed reading course, but is specifically intended for reading comprehension. The comprehension is particularly important for the areas of accounting and electronic data processing as the reading difficulty of these two areas is particularly high. Success is difficult to obtain without the ability to comprehend the subject matter.

Summary. While this section was devoted to methods in the independent business school of today, the reader will have found little that was actually *new*. The emphasis on method in the independent business schools is still on individual progress and personal attention to the student. These were the goals of yesterday, and they have not changed. Added to that personal touch is the assistance the school gives to the individual toward job placement—and no graduate ever goes wanting in that respect.

METHODOLOGY TO MEET PROBABLE FUTURE CHANGES

Really little in the way of predicting future changes in methodology can be offered. The independent business schools are somewhat restricted in innovations because of the cost of such changes. Yet, when changes have been necessary (video tape, steno labs, etc.), the schools have not been tardy.

It would seem that the following points, hardly new, will continue to dictate methodology.

1. Attention will be given to the ethical recruitment of the individual; his instruction in important career areas according to the needs of society, his own personal abilities, and with good, qualified teachers using the best of textbooks, equipment, and methods; and a continued effort to place the individual in a productive position in the American economy.
2. Individual progress in the student's course work will be a continued objective of the private business school. The lockstep type of education, so frequently found in public education, will be avoided wherever and whenever possible.
3. The best of vocational business education will be found at the postsecondary school level. This does not mean in just the independent business schools, but it does include them.
4. In connection with the above, we will find that performance contracting will become a part of the American educational scene and that the independent business school will be involved in performance contracting as a major participant. Public schools will probably shy away from it. Performance contracting will change teaching methods.
5. The major emphasis in schools, and particularly the independent business schools, will be on classroom instruction. Recent emphases, particularly in public institutions on the postsecondary level, on research and publications, will diminish in favor of the importance of classroom performance.
6. Instruction, because of social factors and the coming shorter work week, will have to include consumer education and information on the constructive use of leisure time.

CHAPTER 21

Continuing Education

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More out-of-school youth and adults are going back to school than ever before in history. Approximately one-fourth of these students are enrolled in adult business education courses in public schools, community colleges, private schools, and business and industrial educational programs. For many teachers and students alike, the continuing education classroom offers a new educational experience. A knowledge and understanding of how adults learn is essential.

It takes courage for out-of-school youth and adults to go back to school. Teachers should reward this courage with friendliness, understanding, and well-planned instruction. When even experienced teachers can be sensitive to possible failure during their first graduate course, imagine the concern of the dropout who may have left high school under adverse circumstances. Many first-time adult enrollees are afraid that age may be a barrier to learning—which it is not.

A warm and cordial attitude, especially during the first meetings of the class, can do much to alleviate student fears about any embarrassment. Once the student senses that the teacher is doing everything possible to help him succeed in learning, fears and reservations about returning to school quickly fade.

It is essential that each student feel a sense of accomplishment at each class session. Otherwise, he may become discouraged and drop out again. Business education courses in particular lend themselves to session-by-session, short-term achievable goals that can be recognized as such by the student.

The continuing education class is an ideal teaching situation because the students are there voluntarily to learn. Under these circumstances, the teacher wants to do whatever possible to help the student progress. Most adult educators believe that adult teaching, including instructional materials and methods,

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should be geared to helping the student achieve success—perhaps his first educational success.

Many of the students who enroll in part-time continuing education classes are seeking to advance themselves on the economic ladder. They bring with them a wealth of work experience. The wise teacher takes every opportunity to directly relate this experience to the instructional program. For unemployed youth and adults seeking to remove themselves from welfare roles, the teacher has a special responsibility for guidance and counseling. Listening is an art that many experienced adult teachers have acquired. It is a difficult art to learn, but it pays rare dividends in adult student-teacher relationships.

The continuing education philosophy of the short-term, noncredit adult class is not as far removed as it may seem from the philosophy of the urban adult center for unemployed youth and adults. Out-of-school youth and adults from 16 to 70 years of age, irrespective of their economic background, want to be treated with respect. Only with a knowledge of how adult students learn combined with empathy for the adult learner can a teacher offer the very best instruction.

Too often, however, instructional methods are discussed solely in terms of what the teacher must do to enable the student to learn. This is only one side of the coin. There are many things that the adult student can do for himself in the learning process. Helping the student to help himself, which most adults want to do, should be given top priority as an instructional method in adult classes.

THE LECTURE METHOD

The trend in academic adult classes is away from the lecture method. The expectation that the student will "soak up" information dispensed to him, like a sponge soaking up water; is being questioned as an effective instructional method. Overuse of the lecture method, however, is seldom a problem in business education. Business education is based upon doing rather than "talking."

THE PROBLEM-SOLVING METHOD

Major emphasis is now being placed on various types of student participation methods. Many of the students work in the office occupations or have practical experience as homemakers. Problem-solving methods such as case studies and other techniques are especially useful in courses in the office occupations and personal-use adult business programs. The wise adult business teacher encourages students to bring their world-of-work problems to the classroom.

THE DEMONSTRATION METHOD

The demonstration method, long used in business education, is gaining wider acceptance in other educational areas. To supplement the work of the teacher in the demonstration method, more audiovisual aids have been developed in business education than any other area with the possible exception of science. Business teachers usually do an excellent job with the demonstration method. They know that the demonstration, either directly by the teacher or by the use of audiovisual materials, must result in *immediate* student activity through the sense of touch.

In using the demonstration method with adults, here are a few tips:

(1) Remember that adults may not be able to see and hear as well as younger students. This may necessitate, for example, several small-group demonstrations in the typewriting adult class rather than a single demonstration before the class. (2) Have all materials for any demonstration in readiness. Adults dislike avoidable delays. They are in a hurry to learn. Too many demonstration steps given at one time may confuse adults. Shorter demonstration steps are in order. (3) Give the demonstration slowly and deliberately. Allow students to ask questions, even if it interrupts the demonstration. After a step has been demonstrated, give the student immediate opportunity to learn by doing. (4) Give a demonstration of the *total* step-by-step process. (5) Observe the performance of each student and be prepared to redemonstrate in whole or in part.

WORK-EXPERIENCE CREDIT

An increasing number of adult high schools are granting work-experience credit for adult high school graduation. The fact that more accrediting associations and state departments of education are recognizing the educational values of work experience for out-of-school youth and adults is encouraging. Several federal work-experience programs for unemployed youth are also geared to the work-experience concept.

The adult high school is a "natural" for the extensive development of work-experience programs. Instead of full-time education and part-time employment, as in most day high school programs, it is the reverse in the adult high school. Part-time education in the evenings can be effectively related to the full-time employment of students.

Many of the adult students completing their high school education on a part-time basis want to upgrade themselves in their present jobs. Why not tie the work experiences of full-time employment with the part-time adult high school completion program?

THE MULTIMEDIA APPROACH

Public education has demonstrated that unemployed youth and adults, most of whom have not completed high school, can successfully prepare themselves for employment. One instructional method being utilized in adult business education is the multimedia program. It is a highly individualized instructional plan that coordinates team teaching, programmed instructional materials, and correlated audio and visual materials. A key feature of the multiclerical program is that the student, with the help of the teacher and other auxiliary personnel, has a chance to select the area of specialization in which he has an interest and the greatest potential for success. This multifaceted approach also provides the flexibility for transferring students from one area to another as individual differences warrant.

Common areas of vocational specialization include typists, general clerks, clerk stenographers, cashiers, and stock and inventory clerks. Under the plan, the total number of hours of instruction varies in proportion to the interest and capacity of the individual student to reach the level of proficiency necessary for employment. Required is a full-time teaching staff which must have empathy with the student, a genuine interest in the use of programmed instructional materials and equipment, and a willingness to attend at least three weeks of in-service training in the use of the media. Most important of all, counselors and teachers must function as a team, each member contributing in his area of expertise to the success of the student.

In multimedia programs for unemployed youth and adults, each student must begin at his own level in reading and mathematics. Instruction proceeds from this point. Thus, the student is competing with himself and not with his peers. This is an important key to success in all continuing education programs. Students who are below the acceptable reading level, mathematical ability, or both, frequently face a discouraging handicap in the regular classroom learning situation. Recent experience in working with several hundred "highly disruptive day-school youth" in several communities indicates that the competitive pressure found in traditional programs may be a greater factor in the high school dropout problem than educators have realized.

The multimedia approach is only one method of utilizing the teaching staff and educational media for the students' benefit. As with any new program, continual adjustments by the staff are essential. Curriculum change and organizational change are inseparable. In the schools, organizational change from the traditional patterns is often more difficult to accomplish than curriculum revision.

PROGRAMMED INSTRUCTION

Programmed instruction is a step-by-step method that is highly adaptable to adult learning. The learner proceeds on his own from one learning step to the next and at his own rate of speed. For example, it may take one student 40 hours to complete a business English course and another student 200 hours to complete the same course. This in itself removes the tremendous pressure which many students feel in a typical classroom where individual success or failure under group instruction is frequently based upon the achievement of the so-called "average" student. Learning is an individual matter. No one can learn for the student, least of all the teacher.

Some 200 research studies over the past fifty years have confirmed the reliability of the programmed instructional method. The basic principle of programmed instruction as it is being applied today, often with electronics, goes back to Socrates. The terms, programmed textbooks, text kits, computer-assisted instruction, teaching machines, and other technological systems of programmed instruction, may be confusing, but the basic principle as developed by psychologists is essentially the same.

The method is not new to public education. Following World War II, educational standards were temporarily waived to permit veterans to complete high school credit courses on an individualized basis.

What is the basic plan of programmed instruction? It is a sequence of short, logically arranged learning steps leading the student step by step to the objectives established for the course. There is no one set format for programmed instruction. Typically, a rule or principle is stated for each small step. It is followed by examples or illustrations. The student is asked to indicate his understanding of the rule or principle by filling in a blank selecting one of a series of multiple-choice answers to indicate agreement or disagreement. He may be asked to solve a problem and record the answer. He is then encouraged to refer *immediately* to the correct answer which is provided in the material. This immediate verification is a vital part of the learning process.

On each step, the student builds upon what he has learned in the preceeding steps. The steps gradually increase in depth as the student moves on his own from what he knows to the unknown, or from the simple to the complex.

Programmed learning textbooks frequently appear to be a series of tests. They are not. It is a teaching method, not a testing method. On each step, the student self checks himself and moves on to the next step when he is certain, by self-checking, that he fully understands the principle covered in a particular step. The fact that the student *immediately* learns the correctness or the incorrectness of his response by referring to the correct answer in the programmed text is the heart of programmed instruction. The adult student feels a sense of accomplishment in his understanding of the principle and moves to the next step. He has the opportunity to discover immediately what he does not understand.

For the student who does not understand a particular step, many programs provide additional information and examples to correct immediately any misunderstanding. He again self-checks himself or, if necessary, calls upon the teacher for assistance before moving on to the next step. Time is therefore not wasted in the compoundings of errors in subsequent learning steps.

Each step is short enough and simple enough that the adult student is not overwhelmed. There is no danger of the class moving ahead while he flounders over a basic principle. The method has been used with highly disruptive day-school pupils with encouraging results. In a regular classroom, the student may not learn of his errors until the test papers are graded. The class may have moved on, and he is stranded in the learning process with the possibility of failure.

Isn't there a temptation on the part of the student to refer to the answers in filling the blanks or in solving the problems? Adult students quickly learn that these are not tests upon which they are graded, but a chance to immediately learn how well they understand the material. The opportunity to correct their own mistakes before moving on to a slightly more complex step gives many students the confidence they need.

Psychologists refer to it as a reinforcement theory of learning. It is designed to *develop understanding*, whereas testing *measures understanding*. It does remove the possibility of rote memorization of textbook material or simply "handing back" lecture notes to the instructor on examinations.

It has an advantage in adult education in that students may enroll at any time rather than wait for a new term to begin. Instruction may be offered where there are an insufficient number of students to organize a class. This is often an advantage in the smaller adult center.

Programmed instruction is not a panacea for all the ills of public education. It *does not replace* the effective teacher in the classroom. Students can learn the principles or the facts of most subjects through programmed instruction, but it still remains for the effective teacher to discuss causes, relationships, and applications with students. It does, however, free the teacher from the tedious task of teaching routine facts. Many teachers say that they find greater professional satisfaction in this new role and that it gives more time for problem solving. However, an effective in-service teacher training program and a willingness upon the part of the teacher to accept a more challenging role are required.

Programmed instructional materials can be augmented with audiovisual materials such as magnetic tapes, 8 mm films, and other materials especially adaptable for individualized usage. Much, however, needs to be learned on the proper correlation of audiovisual materials with programmed instruction.

Short sequences of programmed instruction can be utilized in the regular classroom for particularly difficult areas of student understanding. One of the best ways for teachers to familiarize themselves with programmed instruction is to insert such material gradually into the classroom.

State departments of education and accrediting associations are beginning to recognize the value of this "new" type of instruction which requires greater flexibility in state educational standards, especially hour requirements for adult high school credit. Most standards require a final examination.

It has been demonstrated that an adult student can spend a limited number of hours in the programmed learning laboratory and accomplish much at home on his own. The method is especially adaptable to continuing education because most out-of-school youth and adults have a hunger for learning. The method is not entirely new for business teachers who have long used individualized instruction in the classroom.

Again, programmed instruction is *a* method–not *the* method. The effective teacher selects the particular method or combination of methods that are best suited to pupil achievement.

ECONOMIC LADDER

Adult business is playing a vital role in the displacement of our manpower resources. The fact that the office occupations offer the best job opportunities makes adult business education an important part of the economic ladder.

1. The functional illiterate must acquire, within his capacity, the basic education (reading and writing grades 1 - 8) and the fundamental skills to reach the first rung of the economic ladder.

2. Out-of-school youth and adults with two or three years of high school, who are now filling jobs on the first rung of the ladder, must be encouraged to acquire the necessary high school academic and vocational-technical skills to reach the second rung of the economic ladder. Unless this is accomplished, there will be few job opportunities for the men and women trying to reach the first rung of the ladder.

3. High school and college graduates must be encouraged to "keep up" in rapidly changing job requirements and acquire a higher level of academic, technical, and professional skills to reach the third rung of the economic ladder. The upgrading of the entire labor force has a direct relationship to the number of entry jobs available in the labor market.

4. People on all levels of the economic ladder must learn how to utilize and protect their earnings. It is as vital to teach adults how to best utilize and protect their income as it is to prepare them for a job.

CONCLUSION

The fact that millions of adults in the United States are discovering for themselves that *learning never ends* and that it is *never too late to learn* may answer many of the problems of our society—provided public education has the insight, the imagination, and the courage to provide the *opportunities* for learning, including effective instructional methods. The various instructional methods that are used in the adult classroom are important, but they are not an end in themselves. More important is the philosophy which lies behind the methods.

The philosophy of adult continuing education is a simple one. Take people from where they are, forget many of the traditional rules and methods, and do everything possible to help each individual to succeed in learning—not fail again. Public adult continuing education has the responsibility for making up an educational backlog for millions of people, preparing millions more for entirely new types of job responsibilities, and educating for living as well as earning a livelihood.

CHAPTER 22

Teacher Education

Part A: An Overview

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The directions of change for methods in business teacher education in the seventies appear to be (1) an expansion of content for postsecondary teachers who may not take the professional core, and (2) a more clearly defined interdisciplinary approach to teaching and learning in which the contributions of philosophy, psychology, sociology, and technology are applied to educational problems. Following a developmental period in which innovations to improve education were attempted in a somewhat random fashion, the seventies will be a period of evaluation and consolidation. More traditional classroom practices and such techniques as interaction analysis, sensitivity training, microteaching, and individualized programmed instruction will be evaluated within a philosophical, sociological, and psychological frame of reference, with the focus on optimum combinations.

As technological breakthroughs had dominated education in the fifties, federal legislation became the dominant influence of the sixties. The search for relevance and the vocational emphasis were linked, and job analysis techniques were applied to office and teaching performances with extensive research into task behaviors. The increasing roles of federally funded vocational education in the secondary schools, junior colleges, area technical schools, and manpower programs were institutional manifestations of these emphases.

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A new undercurrent was gathering strength, however, as Americans began to realize the shortsightedness of a pragmatic approach that did not reckon with the overall cultural and environmental consequences of an action. Technological feasibility and immediacy of results became inadequate reasons for change. As the general feeling of discontent grew, emotional overtones became predominant. Minorities rioted, women protested their lack of equality, young men refused to be drafted to active duty, students and police met in violent confrontations, Nader's Raiders attacked consumer problems, and diverse groups joined in an effort to save the environment.

Centers of learning are seldom exempt from societal dissatisfaction and unrest. The need for comprehensive perspective in the evaluation of change was reflected in a critical assessment of educational goals. Student demand for educational relevance could no longer be interpreted solely in terms of subject matter and jobs. Students were asking that education be made relevant to their backgrounds, their expectations, their learning weaknesses and strengths, and the human realities of the era.

Thus educational relevance for the seventies has come to be defined in terms of the total cultural environment. Inherent considerations include maintenance of a delicate balance between individual consideration and societal implication, between functional results and consequences for human beings, and between immediate problem solutions and their overall, long-term effects.

For the classroom teacher, the new definition marks a decline in objectivity as the prime virtue. Caring is in vogue. As the great swing to sentimentality evens out, however, the decade could become one in which reason and emotion are complementary reinforcers.

The professional studies component of the teacher education curriculum appears to be a logical component for adapting to this resurgent humanizing philosophy. Already interdisciplinary in nature, professional studies long have been the bridge between the humanistic and behavioral studies and the technical areas to which such studies are applied. Within methods courses, recognized need in the sixties for a different approach to the education of the disadvantaged had placed renewed emphasis on humanizing the educational process, i.e., focusing on the learner and his needs and on the societal problems with which he must be able to deal.

Historical perspective, however, should enable educators to achieve a better balance between cognitive and affective factors than they achieved in the thirties and forties. Their interest in the child's emotional and social adjustment almost obscured their primary task—a search for better ways to teach and to learn. The whole-child concept may be back and flourishing, but educators during the 1970's must somehow make all of the elements merge in an effective learning situation. The interdisciplinary approach must include not only the sociological and psychological causes of *learner behavior* but also a more discriminating application of psychology to the *learning processes*.

PREPARING POSTSECONDARY TEACHERS

A review of the preceding chapters in this Yearbook reveals the variety within the business teacher profession. The 15 subject-oriented chapters could have been expanded to include all of the basic and functional areas in collegiate undergraduate business education. Reasons for subject expansion are revealed in other chapters reflecting the diverse levels and institutional arrangements that have proliferated and grown during the sixties and for which business teachers need to be prepared. A major change in professional opportunities reflects a shift in demand from secondary to postsecondary levels and to manpower programs for adults.

During the sixties, the preparation of business teachers for federally reimbursed vocational classes in secondary and area technical schools had little effect on subject matter specializations, for clerical practice, stenography, machine operations, and data processing continued to represent the largest demand areas. Generally, requirements for vocational certification were in addition to the usual business teacher certification requirements. Major differences in preparation related to administration and supervision of vocational programs, with need for skill in public relations, guidance, and flexible scheduling of classroom activities to conform to job demands for students engaged in cooperative work-study arrangements.

The trend toward diversity in professional opportunities for business teachers is broadening, however, as it gains momentum. Methods courses are being adapted to teacher preparation not only for technical schools and government-industry sponsored programs but also for junior colleges and other collegiate undergraduate education for business. A 1970 study of academic structures, sponsored by the Carnegie Commission on Higher Education, reports that 76 percent of the Ph.D. recipients in business administration from 1958 to 1967 went into teaching.[1] Educated in functional areas of business administration and in certain aspects of research oriented toward the problems of business, these graduates found themselves dealing with problems of curriculum, instruction, and evaluation for which they had had little if any direct preparation. The same holds true for those who serve as college teaching assistants in business schools as they advance to higher degrees; understanding of the teaching-learning processes could contribute to a more profitable experience for both the teaching assistant and his students.

Two factors affect methods courses for collegiate undergraduate teaching positions in economics, marketing, management, finance, quantitative analysis, accounting, secretarial administration, and data processing. First, teacher certification is not required. Second, greater depth in subject matter, with a preference for two majors, is required. For those who pursue an undergraduate degree in business administration, the methods course probably would be taken at the graduate level. Proficiency in subject matter could be assumed; preparation in professional education could not.

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[1] Spurr, Stephen H. *Academic Degree Structures: Innovative Approches.* New York: McGraw Hill Book Co., 1970. p. 124.

The syllabus to prepare collegiate teachers for effective classroom and curriculum interactions, therefore, would need to include (1) the causes of behavior, (2) concepts of curriculum design and implementation, and (3) learning theory applied to instruction and evaluation techniques. Obviously, this scope is broader than that of the usual methods course; but for the prospective business teacher with no professional education background, these units would seem to represent minimal preparation. And the methods course appears to be the logical place for their integration.

Basic elements to be considered in designing and implementing a methods course are the same as those for any other course: the characteristics and objectives of the learner, of the learning, and of the institutional setting with its total curriculum requirements. To the extent that these variables differ for the prospective secondary teacher and the prospective college teacher, the methods courses will differ.

AN INTERDISCIPLINARY APPROACH TO THEORY AND PRACTICE

Theory and practice. An oft-repeated principle runs the risk of becoming a mindless cliche; everybody says it, nobody thinks about it. This may account for our failure to balance theory and practice in a reinforcing way. The oversimplification that they reinforce each other is dependent upon such modifiers as the dependability, the practicability, and the relevance of the theory, the quality of the practice, and the timing or sequencing of both.

Prospective teachers have been exposed to teaching-learning situations most of their lives. The problem is not one of exposure. If there is a rationale for a formal preparatory course for teaching, that rationale must rest upon the need for greater discrimination (perception of differences that already exist in stimuli, i.e., detection of functional cues) and differentiation (process of making or becoming different through response variations) in the learner environment.

The prospective teacher's ability to profit from observation and practice of the teaching process correlates with his insight into significant learning variables, the development of perceptual judgment. For, although motives may determine *what* will be seen, *how* it will be seen depends upon the background he brings to the situation.

To become viable, theoretical insights need to be combined with systems for observing, recording, and analyzing classroom behavior. Refinement of such systems as Ned Flanders' interaction analysis should result in a useful technique for assisting prospective teachers to create a classroom atmosphere that encourages teacher-learner interaction.[2] Because understanding of human nature begins with self-understanding, the use of various forms of sensitivity training to increase teacher awareness of self in relation to others will also continue.

These are not the sole factors in successful practice, however. A certain minimum pre-existing skill in explaining and demonstrating is essential. The reference goes beyond knowledge of subject or proficiency in skill operations; being able to do something or to know something differs from being able to communicate that skill or that knowledge. Along with theoretical insights and observational techniques, practice and feedback on some of the simpler tasks during the methods course should ease the transition to the more complex total teaching situation. Improvement should result from better implementation of the microteaching practices of the sixties.

Within the methods course, the degree to which specific applications of theory to practice must be made depends upon the nature of the class enrollment. For example, in preservice methods courses, some very specific skills need to be developed. In-service courses, on the other hand, permit greater attention to the theoretical bases for decision making in the classroom.

Psychology applied to the learning process. In the seventies, the interdisciplinary emphasis may be reflected in increased attention to the relevance and the dependability of learning theories and in more careful application to practice. Insofar as the teaching focus relates to the task, theories of learning are primary sources of concepts to make the learning situation efficient and effective. Educators and psychologists generally agree that learning processes vary in degree and kind (e.g., cognitive, affective, and motor) and thus identify the boundaries within which a theory may operate. Insight into psychological and sociological causes of learning should enable educators to identify relevant concepts for development of the needed knowledges and skills described in studies of task behaviors of teachers and office employees in the sixties.

Awareness of differentiating learning variables is not new to the business educator. Methods generally are offered in at least two courses, one for skills and one for the more cognitive areas of basic business, although courses such as accounting and data processing do not seem to fit wholly within either category. Unfortunately, prospective business teachers often fail to generalize, and they consider a methods course only in its relationship to a specific subject to be taught. In too many instances, they are looking for an entry-job bag of tricks, not a frame of reference for a creative lifetime career.

The motor-skill process. If the prospective business teacher is to profit in a generative way from the interdisciplinary approach, he will need to understand the defining features of a learning process and be able to judge whether a psychological concept describes those features. Particularly, he should be aware of the differences in teaching-learning techniques for developing motor skills and for developing cognitive skills.

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[2] Flanders, Ned A. *Teacher Influence, Pupil Attitudes, and Achievement.* U. S. Office of Education Cooperative Research Monograph No. 12, OE-25040. Washington, D.C.: Government Printing Office, 1965. See also systems designed by John Withall, B. Othanel Smith, and James J. Gallagher.

The distinguishing features of the motor-skill process are the time-and-space relationships acquired for movement-involved tasks; the major feature is the neuromuscular activity that leads to automatization of a series of interdependent time-and-space patterns known as response chaining. Each phase through which the process develops has distinguishing characteristics, and learning concepts appropriate to one phase may be inappropriate for another.

Experts in skill psychology generally agree that motor-skill development proceeds most efficiently under expert guidance with instruction based on explanation, demonstration, and reinforcement of learner responses. In the early phases, the learner must learn what to do, how to do it, and what to expect in feedback from his actions. He should not be left to work out his own techniques, for he is unable to discover the most efficient responses. The learner progresses from attention to these essential cues (the "mechanics") to the ability to execute the skill with little conscious awareness as to the mechanics of its execution. This terminal objective contrasts to that of verbal learning in which the objective is to learn to think clearly and with increasing awareness of ever finer discriminations.

Long before the popularization of behavioral objectives or performance goals in the 1960's, motor-skill objectives were stated in quantitative terms based on improvement of pattern and improvement of rate. This simplistic concentration on the end result may have been partly responsible for the overmechanization of the skill development process. Although cues are essential to skill development, research indicates that the most important variable is reinforcement; and reinforcement depends upon observation and evaluation by an expert who can recognize individual impediments to learner progress. The effectiveness of that reinforcement, in turn, depends upon its specificity and immediacy. Reinforcement is essential not only to understanding of learning cues but also to motivation, a significant variable in a process that involves repetitive practice.

During the seventies, as motor-skill development is examined more carefully in light of psychological theories, the contributions of the teacher and of electronic equipment and programmed materials will be reassessed. Relative effectiveness and untapped potentials of different instructional arrangements will be examined for (1) setting directional goals for improving pattern or rate, (2) setting quantitative goals for each learner within a range where either success or failure is possible, and (3) prescribing effective drills based on diagnosis of learner problems.

The cognitive process. Although motor skills do not develop in isolation from affective and cognitive factors, technical proficiency does not derive primarily from processes related to thought, judgment, and values. By contrast, proficiency in basic business courses does. For the cognitive classification, successive objectives set forth by Benjamin Bloom and his colleagues are of increasing complexity, each one involving those that preceded. Objectives begin with acquisition of knowledge and then proceed along a continuum extending through understanding, application, analysis, synthesis, and evaluation.[3]

Analytical thinking and concept development are inherent in the nature of many basic business courses; e.g., economics is sometimes called the science of choice. Helping learners to develop analytical and conceptual abilities, however, is a complex process, and there are no general rules for the teacher to follow. The mere determination of how complete cueing should be is dependent on the type of learning involved, the ability of the learner, and the objectives of the course. Experimental evidence indicates that concepts discovered by the learner are remembered better than those provided by the teacher. But unaided learning is the least efficient of all learning situations.

Jerome Bruner and other psychologists hold that the most efficient instruction involves guides for developing a process for dealing with information so the student will be able to recognize functional cues and eliminate irrelevant stimuli. John Dewey's five problem-solving steps, if combined with ordinary rules of logic and precision in word usage, could be one such guide. Inasmuch as a problem-solving approach cannot operate in a vacuum, process and content must be balanced.

The key to concept formation lies in the ability to recognize defining attributes, to distinguish between that which is significant and that which is not. Becoming more expert simply involves learning ever finer discriminations and how the attributes relate to one another within an area.

The most difficult aspect of concept development, however, is being able to put concepts into words. Neither teacher nor learner can make anything comprehensible to others until he has made it comprehensible to himself. Making the imagery clear in one's own mind and being able to symbolize it through coherent communication appear to be interdependent. Apparently, language is essential to thinking as well as to expressing those thoughts.

Research has revealed the crippling effects of deprived human environments in which opportunity to share in dialogue is minimal. Thus symbolic development and social interaction are essential to the intellectual progress of children or adults from culturally deprived backgrounds. James Coleman's extensive research into the equality of educational opportunity indicates that the interaction must encourage learners to feel that they have some control over their own destinies.[4] Basic to such encouragement is the teacher's ability to accept value systems that differ from his own.

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[3] Bloom, Benjamin S., and others. *Taxonomy of Educational Objectives, Handbook I, Cognitive Domain.* New York: David McKay Co., 1956.

[4] Coleman, James. "The Concept of Equality of Educational Opportunity." *Harvard Educational Review* 38:7-22; Winter 1968.

The teacher of the 1970's cannot wait for readiness. Recognizing that readiness is a mastery of simpler skills, the teacher must provide opportunities for its nurture. If psychologists are correct in maintaining that you can impart any skill or knowledge at any age, the teacher will need to assess the level at which learners are operating conceptually. Development will consist of deepening and enriching earlier understanding.

Because symbolic expression evolves through earlier phases of handling, seeing, and imaging, such courses as general business and consumer economics appear well suited to conceptual development.[5] Students can start with concrete events and conditions in their own lives and communities. In addition, these courses are filled with opportunities to assess values, develop appreciations, and change attitudes.

The irony of a crusading layman, Ralph Nader, accomplishing in a year or so what educators had been advocating for a half century does not detract from the present acceptance of consumer economics as a required course in many states. The challenge of the seventies is for teachers to see that consumer economics becomes not only a popular cause but an equally popular course. In the process, they might also make a convincing case for broadening the scope to include societal economics in general. If a market-oriented economy functions best within the framework of a democratic political system, preparing people for the former could become irrelevant if the latter is neglected. Many political questions are economic in nature. The interdisciplinary approach could help to clarify the interacting forces—economic, social, and political—in the determination of personal and social economic goals. Cooperative planning, teaching, and evaluating by specialists in different curriculum areas might accomplish this goal. Thus, the prospective business teacher will need to understand the concept of team teaching and the techniques for its implementation.

Methods for the cognitive areas in the seventies will need to go beyond the development of question-answer, problem-solving, case-study, project, laboratory, lecture, and concept-development techniques to an understanding of how these techniques can be adapted to different learner attitudes, capacities, and interests in achieving desired educational objectives. The prospective teacher still must be cognizant of the structure of his body of knowledge and of techniques for arousing and maintaining learner interest. In addition, universalization of education makes imperative attention to other factors affecting classroom adaptations, e.g., the teacher will need to take advantage of learner expectations by determining the particular background that the student brings to the situation.

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[5] Bruner, Jerome S. *Toward a Theory of Instruction.* Cambridge: Belknap Press of Harvard University Press, 1966, p. 34.

REASSESSING THE ART

Methods courses have seldom been confined to technical training. Often they have attempted to combine technical training and proficiency in subject matter, as evidenced by our courses in data processing for teachers during the last decade. The philosophical and behavioral insights were supposedly acquired in other courses. Too often, however, prospective teachers were unable to make the philosophical, psychological, and sociological applications to instructional practice.

Changes in teacher demand will be reflected in more rigorous preparation that may operate as a selective device for the profession. In addition, the seventies will see more in-service professional study and a leveling off of the previous concentration on current practices. The focus of the sixties on analytical studies of what *is* can provide a base for experimentation as attention turns to what *should be*. If we have learned anything from the past, it is that perpetuating current practices through imitation does not improve educational practice. When students are expected to learn through observation and practice, they should be armed with a philosophy of education and psychological and sociological insights into the significant variables in the teaching-learning environment. They must look beneath the good-teacher checklist kind of conditioning to an examination of what the items on the checklist really mean and the major obstacles to putting them into practice.

The sixties have provided us with tools and data. We have moved from simplistic classifications of the learner in terms of bright, average, and less able to a study of underlying causes how learners got to their present status. We have learned that there is need both for individual pacing and for group participation through interaction and communication. We have examined the motivational aspects of competition and the intrinsic love-of-learning aspects of noncompetitiveness as they relate to cultural differences in learner backgrounds. We recognize that these are adaptive means only and that no pattern exists for overall application, for teaching is truly an art.

Art is not synonymous, however, with intuition. There is no more disciplined, consuming preparation than that of the artist. He is aware that he must understand certain basic principles before interpretation can become art. But until he learns to interpret, he is a technician only.

The assignment for the methods teacher is not easy. For he must lead the way in converting the essence of seemingly conflicting theories, through tests and selective application, with a tolerance for ambiguity and an unending search for threads that fit together. The process is something like gathering sugar water in a maple orchard. One taps the trees and fixes the spikes to hold the buckets. Then the trees fill the buckets with sugar water that must be gathered and brought to one place. It takes a lot of fire and constant stirring to reduce the volume to the point where one stirs off a gallon of syrup. So it is with learning.

The overpowering volume of information calls for a reduction to obtain the essence. But the details must be gathered and boiled down through prodigious effort. This may be the "sudden insight" of Gestalt psychology. The suddenness refers only to the end process where the constellation occurs, not to the meticulous processes that precede it.

The affective element basic to cognitive and motor development will continue to require better insights into cultural differences in learner background. To make adaptations from the behavioral sciences viable, teacher educators may go back into the classrooms for which teachers are being prepared. Already some universities have given methods teachers joint assignments in which they teach courses in secondary classrooms along with a graduate methods course. Teachers in the methods course receive the how and why instruction and then observe the professor in the act of teaching. Adapting techniques to the nature of the learner can be not only described but also demonstrated. This approach is being expanded to participation in junior college instruction, in manpower programs, and in collegiate undergraduate classes.

Perhaps there is little that is really new in this overview of changes in methods for the seventies. The tools, data, and techniques now are available, however, to enable our goal orientations to become realities. The challenge is to use all of these tools with discrimination and with the objective of *effecting change*, not just letting it happen.

Part B: Application of Technology

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The advent of educational television made way for many changes in methods classes in the 1960's. These changes included the techniques used to teach methods classes and the applications of educational television in other business education courses. The utilization of microteaching has become popular with the availability of portable videotaping equipment. This equipment can also be used effectively in the skills and basic business classes. Teacher education institutions must bear a part of the responsibility for making business educators aware of the proper use and possible misuse of educational television in the classrooms of the 1970's.

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For many years business educators have recognized the need to provide for individual differences among students in every class. However, it is a rare teacher who feels that he has adequately mastered the techniques for meeting student diversities. Numerous suggestions have been made for individualizing instruction, but the difficulty lies in the actual implementation of these suggestions. A learning system called "Individually Prescribed Instruction" offers, at least in part, a solution to many student and teacher problems. Perhaps one reason for the recent emphasis on individualizing instruction is the increased pressure placed on educational institutions from both within and without to account for the successes and failures of their graduates. Educational institutions are being challenged more today than ever before to state their objectives in very specific terms and to prove that they are actually accomplishing these objectives. Teachers are required to account for their performance, as students demand the privilege of evaluating the quality of instruction they receive in each class.

The need for increased economic education for students at all levels has been reflected in the literature of the past two decades. Both businessmen and educators recognize that the responsibility for an economically literate citizenry rests with elementary, secondary, and collegiate institutions. Though much progress had been made, educators have not yet begun to accomplish the objective of economic education for every student. Studies show that a large number of teachers do not possess a high degree of economic understanding; therefore, they cannot hope to impart to their students the required concepts. Additionally, teachers are lacking in the knowledge of how to teach the basic business content since the major emphasis in methodology is on the skills. Educational institutions must then admit that they are lagging in meeting this recognized need of their students.

MICROTEACHING

Perhaps the most significant change of the past decade in teacher education is the use of videotaping equipment. The availability of this equipment at a reasonable cost has made it possible for teacher educators to experiment with various teaching techniques for the improvement of their programs. One of the most popular teaching techniques made possible through the use of this equipment is microteaching.

Microteaching, in the true sense of the term, is an experience in which the student teacher presents a short unit of instruction to a small number of students in a real class. The length of instruction is usually from 10 to 15 minutes, and the number of real students may vary from five to ten. The experience is videotaped to permit the student teacher and supervising teacher to review the presentation, make a critical analysis of its effectiveness, and determine improvements that might be made. Ideally, this critique immediately follows the microteaching experience. The student teacher is then given a short time to revise his presentation incorporating the suggested improvements. Once more he is videotaped as he gives the revised presentation to a different group of real students. Again, the student teacher and supervising teacher review the tape for the purpose of evaluating the improvements and further refining the presentation. This process may be repeated as many times as necessary.

There are many variations to the procedure just described. If a real class is not available, the student teacher's peer group may act as the class. The timing of the evaluation and the repeat performance may vary, although it is highly desirable for the critique to occur as soon as possible after the presentation. In some cases there may be no need to repeat the performance. In other instances, when videotaping equipment is not available at the necessary time and place, only the audio is tape-recorded and evaluated in much the same manner. Some teacher educators may not feel that this situation can be accurately termed microteaching, but it does provide a means of student-teacher evaluation of the audio portion of the presentation.

The microteaching experiences may be considered a part of the preparation for student teaching. Once student teachers are located in a school system, videotaping can be used effectively by the student teacher, cooperating teacher in the school system, and supervising teacher at the college or university.

When videotaping equipment is available in both the cooperating school and the college or university, the student teacher may have a portion of a class session taped. The cooperating teacher and student teacher view the tape and evaluate the performance. This evaluation session is also videotaped and sent, along with the tape of the class session, to the supervising teacher at the college or university. The supervising teacher, and perhaps some of his colleagues, view both tapes. The supervising teacher then videotapes his evaluation and sends it to the student teacher and cooperating teacher.

This procedure can be used to supplement personal visits by the supervising teacher. Occasionally the distance between the college or university and the cooperating school permits only two or three visits by the supervising teacher. Weather conditions may prohibit travel at the time when assistance is most needed by the student teacher. In other cases a large number of student teachers must be guided by one supervisor, thus limiting the number of observations of each student teacher.

With an increasing number of students entering teacher education programs, this videotaping procedure becomes a valuable aid in placing student teachers with outstanding instructors. More value can be placed on the quality of cooperation of the school system rather than on the distance between the cooperating school and the college or university.

USES AND MISUSES OF EDUCATIONAL TELEVISION

Problems regarding the use and misuse of educational television are becoming prevalent in educational institutions today, particularly at the collegiate level. In some cases complete courses are taught by television as a means of exposing all students to the "expert" teacher at a reduced cost. The effectiveness of such courses is being challenged by both students and teachers, in response to which two questions must be answered: (1) Do students learn more by being exposed to "expert" teachers through the medium of television than they learn from a less expert teacher in person? (2) Is the cost of education really reduced by teaching complete courses through television, and if so, can this reduction in cost be justified if students do not learn as much?

Educational television can be an effective teaching tool when properly used. Few teachers would consider using only one teaching aid, such as the overhead projector, the flannel board, or films, throughout a complete course. Why then should they consider using the medium of television for a complete course? If the quality of education is to be improved, teachers must use those aids which actually enhance their instruction and use them in a manner which augments learning.

The role of the teacher educator in the use of educational television is to demonstrate to prospective teachers its effectiveness in the classroom. Equally important, the teacher educator must establish that he really believes what he is teaching by using this medium in his classes only when it actually aids learning.

The teacher educator might prepare or have prepared video tapes that illustrate their usefulness as a teaching tool, but not as a replacement for the teacher. For example, in the typewriting class the improved visual of videotaping is invaluable in teaching proper stroking, correct reaches, machine parts, crowding and spreading letters, and correcting errors. The teacher is then freed to observe the class and give individual help where it is needed. The importance of the teacher has not been lessened in any way, but his job becomes one of a different nature.

In shorthand classes theory presentations may be made by video tape, again providing an improved visual. The students learn to respond quickly in theory drills since the tape will not wait for them. The teacher is allowed to observe students as they respond to these drills and can note trouble spots for additional work. He is also able to determine whether all students participate in the drills and prod those who prefer to be passive observers.

In basic business courses, videotaping can provide experiences that ordinarily are not available in the classroom. For example, it may provide the same kind of learning that a field trip would, yet the difficulty of arranging a time to make the trip and securing transportation would be alleviated. Through videotaping, a student's interview of a businessman might be shared with the entire class, business law students might be able to view a court in session, or a lecture by a noted economist might be shared with a class where such an exposure would not otherwise be possible.

The point that must be emphasized by the teacher educator is that educational television is a teaching tool and not a replacement for the teacher. In fact, much more effort is required of the teacher who provides such experiences than of one who uses only conventional teaching techniques. However, once the resources are prepared, they can be used repeatedly as long as they remain up to date and relevant to the topic under study.

INDIVIDUALLY PRESCRIBED INSTRUCTION

At last a means of implementing individualized instruction has been provided through a learning system called "Individually Prescribed Instruction." The concept of IPI includes: (1) breaking a course into a branched sequence of short instructional tasks and establishing a sequence in which the tasks should be completed; (2) pretesting students to determine at what point in the sequence they should begin study; (3) writing clear statements of the behavior students are expected to exhibit when they have successfully completed the unit, including specific terminal behavior, conditions under which the students will perform, and criteria for minimum acceptable performance; (4) writing a series of learning activities to teach the knowledges and skills necessary to meet the objectives, including self-tests whereby the students can determine when they have met the objectives; and (5) preparing a test that will measure students' achievement of the knowledges and skills described in the objectives.

In an IPI learning system, students are able to pace their progress according to their individual abilities since the whole class is not required to study the same thing at the same time. Students may be given some choice of the topics they will study and the depth of study. Various media for achieving the objectives are suggested in the learning activities so that students can select a medium by which they learn best. Most important, student failures are eliminated because students receive credit for a course when they are able to meet the required number of objectives. If they do not meet them, they simply do not receive credit for the course. Consequently, during a regular semester a student may receive more or less than the usual number of credits, depending upon his ability and desire to complete the required number of objectives. Schools which teach courses by IPI report that from 80 to 90 percent of the students enrolled successfully complete the courses within the regular semester or with a short time extension.

Since IPI is becoming recognized as an effective learning system, teacher educators must prepare prospective teachers to fit into school systems that have already implemented this system. Further, prospective teachers should be prepared to implement such a learning system if they should locate in a school which does not presently use it. One of the best ways the teacher educator can familiarize future teachers with this learning system is to use it himself in his classes.

While the IPI learning system has not yet been scientifically evaluated, it has been determined that it does work and that students do like it. In some school systems it has greatly decreased student dropouts, particularly in inner-city schools that typically have a high dropout rate.

The IPI learning system has another advantage for the teacher: it provides specific information by which he can account for his own success in the classroom. He is able to state in specific terms what the objectives of his course are and how many students actually achieve these objectives. Since the IPI learning system produces a high degree of student successes, it follows that the teacher is also highly successful.

With an increasing number of private organizations assuring the successful performance of their students, teachers in the public schools are challenged to account for their students' accomplishments. If teacher educators are to convince prospective teachers that they will be held accountable for the achievements of their students, they too must account for the performance of their own students. They must make certain that prospective teachers master the knowledges and skills necessary for proficiency in the classroom.

EMPHASIS ON BASIC BUSINESS IN TEACHER EDUCATION

In the past 10 years much has been written about the need for improved knowledge of content and teaching methods in basic business and economic education. A primary reason given for this deficiency is that teacher education programs lack adequate attention to both methods and content pertaining to basic business. Yet when one examines the curriculums of teacher education institutions, rarely will he find a separate course in methods of teaching basic business. In most cases the curriculums include a methods course in the secretarial skills or only one general methods course. When only one general methods course is offered, the major emphasis is placed on the teaching of secretarial skills. It is not surprising, therefore, that today's business educators prefer to teach the secretarial skills rather than basic business and economic education.

Some educators advocate a de-emphasis in teaching special methodology. However, teacher education institutions should have no difficulty in justifying at least two methods courses at the undergraduate level, one devoted to the secretarial skills and the other to basic business and economics education. These two courses would be quite different in nature since the methodology applied to secretarial skills is quite different from that applied to basic business.

Teachers of basic business must have a sound foundation in content, otherwise methodology is meaningless. This foundation may be acquired through a core of basic business courses usually required in collegiate schools of business, and integration of content and methodology should provide the skills and knowledges necessary for competent teaching of basic business and economic education.

CHALLENGES OF THE FUTURE

In a nationwide survey in 1968, 44 percent of 847 teacher education programs utilized the microteaching technique in methods classes and student teaching.[1] This number has no doubt increased in the past four years and will continue to increase as teacher education institutions plan their budgets to include the purchase of videotaping equipment.

The future of educational television rests with its proper use rather than its abuse. It can be and is an excellent teaching tool, but effective teaching still remains the responsibility of the teacher. Teachers would not ordinarily consider using one teaching tool throughout any course, and this principle must be applied to educational television too.

Students today are less inhibited in expressing their dissatisfaction with the quality of their education. They are demanding that the content of their education be relevant to their needs, and they are demanding the right to express their views concerning the quality of instruction they are receiving. This pressure, along with the guarantees made by private organizations for successful student performance, forces teachers to justify the content included in their classes and to devise a means for evaluating their own effectiveness in the classroom. An IPI learning system enables teachers to account for their students' achievements. If the objectives of the course are appropriate, successful students in the classroom will likely be successful citizens outside the classroom.

With the continued emphasis on basic business and economic education by both businessmen and educators, teacher education institutions must accept the responsibility to produce teachers who are qualified and motivated to meet this need. A logical step in this direction is to place the same degree of emphasis on the content and methods of basic business as on the skills and methods of secretarial courses. This emphasis can and should be applied without de-emphasizing secretarial skills. A separate course in methods of teaching basic business subjects, as well as a sound foundation in the content, must be included in the curriculums of concerned teacher education institutions.

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[1] Woolschlager, Ruth B. "Microteaching for Preservice and In-Service Teacher Preparation." *National Business Education Quarterly* 38:26-32, May 1970.

Section VI

THE KEY TO SUCCESS IN MEETING CHANGING METHODS OF TEACHING BUSINESS SUBJECTS

CHAPTER 23

A Multi-Ethnic Approach

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An integral part of the changes discussed in the previous chapters must be a commitment by all teaching personnel to changes in attitudes, ideas, and ideals as they relate to multi-ethnic approaches to classroom instruction. The decade of the sixties exposed the national unawareness of the lack of knowledge, understanding, and appreciation of the richness of our multi-ethnic society. Through direct and indirect omission, large segments of the population were treated as if they did not exist. The decade was devoted to mass confrontation in the arenas of politics, education, and business. Also attacked were religious, social, health, and welfare institutions. In fact, the entire fabric of American life was challenged and questioned. The democratic behavior of people was judged and found imperfect as each group asserted its aspirations for fuller participation in American society. The causes of American unrest with the obvious inequities of opportunity among people of different races, cultures, faiths, and geographic origins were explored in depth by the entire media. Governmental departments and private foundations supported many of these concerns with financial aid. A major part of national concern related to education. From numerous groups came recommendations, even demands. Studies (both informal and formal), articles in spurious and respectable publications, and research findings by laymen and professionals on intergroup and multi-ethnic education were made public. However, despite much evidence that changes in attitudes, ideas, and ideals occurred during the sixties, discrimination and misunderstandings still exist. In some areas problems have multiplied, if not polarized.

The decade of the sixties has passed, and the middle of the seventies is approaching. The thrust must now be the implementation on all fronts of the

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lofty ideas and ideals expounded in the last decade. Many differences of opinion exist regarding who should receive the training needed to work with multi-ethnic groups who should receive the "new" education. The salient point is that intergroup education must be for all persons, those of a majority group as well as for those of a minority group. All people need to share in the knowledge that America's growth came from the contributions of many races, creeds, and cultures.

CAUSES OF MISUNDERSTANDINGS

The causes of misunderstandings are many—intentional and unintentional. Individuals and groups have *intentionally* exploited others for personal benefits and status. Individuals and groups have *unintentionally* created tensions and inequities because of insufficient, inadequate, incomplete, or erroneous information on similarities and differences among cultural groups. Some have equated culturally different with culturally disadvantaged. *Obviously, culturally different does not necessarily mean culturally deprived or disadvantaged!*

For clarifying these misunderstandings, the nation looks to its schools as a catalyst in reducing the unintentional affronts and in providing the necessary retraining. Through training, both preservice and in-service, teachers can be prepared to feel an obligation, a commitment, a dedication to the cause of multi-ethnic equality. Business educators, of course, must play a role by including multi-ethnic concepts in the existing curriculum to effect CHANGE.

Narrowing down the complex problem of providing multi-ethnic training in a business education classroom so that it, too, can contribute to the larger, total problem is the purpose of this chapter.

INVOLVEMENT OF BUSINESS EDUCATORS

Among the many projects developed in response to the growing need for innovative teaching materials designed especially for business and office education teachers were three 1968 summer institutes for teachers of disadvantaged youth. Held at Temple University (Philadelphia), San Francisco State College, and Hunter College of the City University of New York, the institutes were organized in cooperation with The Center for Vocational and Technical Education at The Ohio State University. Major purposes of the Hunter College Institute were: (1) to provide clinical experiences (face-to-face involvement with the environment of the student), (2) to preview films recommended for sensitizing teachers to student needs, and (3) to prepare written materials that local supervisors and teachers could use in their schools.

Clinical experiences. Teachers of disadvantaged or culturally different youth must be aware of the life styles of their students and the behavioral patterns which grow from their environment. From the empathy acquired through local clinical experiences, the teacher adjusts his methods, subject matter, and standards. The positive attributes of students can be expanded and negative influence redirected. The teacher who wishes to plan a program of clinical experiences should include the following sociological units: home; physical environment; school; recreational facilities; business, civic, religious, and social groups; and local and state governments. The plan of action should involve visits and observations; letters and telephone inquiries; and attendance at, participation in, and leadership of activities related to the school community. Specifically, an abbreviated checklist might include the following teacher activities:

1. Establish contacts with parents and guardians for clarifications, commendations, and/or complaints.
2. Read and study local ethnic publications. (If a newspaper is in a foreign language, secure cooperation of a foreign language teacher to translate some highlights.)
3. Go privately on a comparative shopping trip at a local market, store, or other place of business that serves the school community. Compare merchandise and credit plans. Observe local living conditions.
4. Listen to local radio stations, and view television programs which cater to special ethnic groups.
5. Visit a variety of business education classes in other parts of the city, state, or nation where a predominant ethnic culture exists.
6. Sponsor clubs such as FBLA for greater interpersonal relationships
7. Chaperone students on excursions to observe their out-of-class behavior and language.
8. View museum art collections by multiracial artists and about ethnic groups.
9. Attend concerts of multi-ethnic performers, preferably with a person of the same cultural background who may give a broader interpretation of the performance.
10. Attend civic meetings in various neighborhoods. Interpret school goals.
11. Contact businessmen regarding employment opportunities and limitations for minority groups. Request copies of publications from the U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210, concerning local employment and unemployment statistics.
12. Confer with directors of local social action, civic action, racial action, and political action organizations. Read about their programs and remain aware of their progress and problems as they relate to minority groups.

Evaluating new teaching materials. With the revolutionary "Black awareness" movement, most publishers of textbooks, workbooks, and supplementary materials (including the wide range of audiovisual teaching aids) are attempting to make materials truly multi-ethnic. In the 1960's, many publishers nerely inserted a few ethnic pictures and shaded the faces of outline drawings. This did not satisfy many textbook adoption committees who insisted upon a broader interpretation and coverage. Boards of education in many communities directed adopting committees to evaluate the natural blending of multi-ethnic approaches in teaching materials and to certify that these standards were met before authorizing the expenditure of public funds for educational materials. Previously, textbook adoption committees were mainly concerned with the political doctrine of texts and whether or not they included derogatory material about racial or cultural groups.

A business education teacher who wishes to plan a program for evaluating teaching materials might use the following checklist:

1. Are the names used multi-ethnic? Are the names in business mathematics problems, general business exercises, accounting practice sets, typewriting drills, etc., representative of a multi-ethnic America?
2. Are the pictures, illustrations, and sketches appropriate, integrated, and balanced as to racial groups and geographic areas?
3. Are the problems related to urban, suburban, exurban, and rural communities?
4. Do instructional materials in business communications show the contrast between appropriate and divergent dialectrical speech patterns?
5. Do success stories or articles on outstanding contributors to the nation's economic growth include examples from many ethnic groups?
6. Are the texts and materials on merchandising and marketing realistic in explaining small business ownership? Are financing difficulties encountered by minority group proprietors and deceptive trade practices explained?
7. Are problems in consumer education defined in terms that are relevant to children from the inner-city (blacks and Spanish-speaking), on reservations (Indians), or Southwest deserts (Mexicans)?
8. Is a condescending or paternalistic view taken toward the culturally different or disadvantaged?
9. Are films representational, significant to the needs of the group, and appropriate to the interest level and socioeconomic background of students?
10. Is the language at an appropriate reading level?

Compiling a bibliography. The participants in the Hunter College workshop developed *A Bibliography of Business Leaders from Minority Groups* revealing to them a surprising amount of published material about black business leaders. The participants noted in 1968 that material on Mexican-Americans, Indians, and Puerto Rican businessmen in this country was almost nonexistent, except perhaps in selected areas of the country. In the intervening years, however, the press has increased its coverage of these groups. Even so, coverage on minority group business giants and those emerging as business leaders is still inadequate. Emphasis in the press is often on the artists and sports personalities.

Compiling and using a bibliography of articles and books related to minority group achievements in the business world should be an integral part of each business teacher's educational plan of providing supplemental materials to the regular textbooks used in courses. Psychologists generally advocate that self-identification with a successful image is a strong motivating force. Also, it is equally important for members of other ethnic groups to learn by actual example that all racial groups are capable of working successfully in a wide range of occupations in the business environment, thereby nullifying the myth of racial inferiority. The classroom teacher must set the tone and pattern for developing mutual respect for differences and awakening the student conscience to the fact that many persons are achieving success in the business world in spite of racial injustice and oppression. While it is important to develop pride in the accomplishments of the giants of industry, the goals of persons who have achieved small measures of success should receive the greatest emphasis as realistic goals for all students.

In compiling a bibliography, teachers should develop the habit of collecting, presenting, and displaying articles from newspapers and magazines on minority group achievement in business and office occupations. Also, teachers should thoroughly familiarize themselves with and utilize the books and periodicals in school libraries. Under Title II of the Elementary and Secondary Education Act, many school libraries have increased their holdings and subscribed to wide varieties of books and periodicals reflecting our multi-ethnic society.

How to use a bibliography of business leaders from minority groups. In the following courses teachers could suggest many different projects.

1. *General Business or Consumer Fundamentals.*

   Students could

   a. Read several articles and select one for a brief oral or written report. When possible, the report should correlate with units of study.

   b. Prepare bulletin board displays of newspaper clippings and create showcase displays of related products or services.

2. *Business Mathematics, Recordkeeping, Bookkeeping and Accounting, or Business Principles and Management.*

   Students could

   a. Read several articles and complete a notebook of sample forms and other recordkeeping papers needed by a small businessman.

   b. Contact sources of supply and estimate the cost of furnishing a small business with office machines, furniture, supplies and related equipment as mentioned in an article.

3. *Business English or Business Communications*

   Students could

   a. Develop writing skills by creating playlets dramatizing the lives of minority business leaders.

   b. Develop training in public speaking by presenting the playlet dramatizations to small groups or assembly audiences.

4. *Typewriting and Office Practice*

   Students could

   a. Type and duplicate additional copies of the bibliography, including revisions and additions for distribution to classmates, teachers in other schools, or community groups.

   b. Become involved in practical office practice problems by collating, folding, and distributing the bibliography for wider circulation.

SUMMARY

In summary the following conclusions are made to support changes in multiethnic educational practices. Contributions from minority groups should become an integral part of subject matter presentation. Instruction should develop from known, familiar, or local situations to unknown, unfamiliar, or national experiences to widen student horizons. Current articles and books about the business and economic community involving multiethnic groups should be used regularly. Textbooks, multimedia presentations, and supplementary publications should include through content and illustration the diversity of race, customs, and cultures.

This chapter suggests only a few ideas about changes that must occur in the attitudes and behavior of business educators preparing pupils to assume roles in the business and economic life of the nation. Further research may be done in the area to refine and enlarge the concepts proposed. With new awareness, conscientious business educators can join the vanguard seeking change for a more relevant teaching environment.

CHAPTER 24

The Dedicated and Professional Business Teacher

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In several of the preceding chapters, leading authorities presented many of the current and emerging principles governing effective teaching and learning in both content and skill courses in business education. These principles were based on both survey findings and personal experience with special emphasis on the latter. However, implementation of these principles to effect efficient and competent office employees *through* the teaching of subject matter, rather than just the subject matter itself, is often hampered by some common weaknesses in competencies and in classroom and administrative practices and management, especially by the beginning and less experienced teacher. The intent of this chapter, therefore, is to point out more specifically those positive teaching practices and techniques in some of the subject matter areas (based on years of experience) that separate the highly professional, dedicated teacher—the one who more nearly attains the objective of employable graduates—from the "run-of-the-mill" teacher.

BASIC BUSINESS-ECONOMIC EDUCATION

(Chapters 1-5)

The interested and professional teacher of basic business-economic education is one who OFF SEAT, ON FEET—

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1. Prepares his course outline:
   A. For students:
      (1) Who will enter business as employees and law-abiding citizens
      (2) Who may eventually have an opportunity to manage a business for others
      (3) Who already, or who will eventually, own and operate their own businesses
      (4) Who are investigating the possibility of a business career of some kind
   B. To guide students to understand the relevance of sociobusiness principles in their everyday living and in their employee-employer (management-employee) relationships
   C. To involve teachers from a number of disciplines, working together (e.g., home economics, social studies, science, industrial arts), each bringing to the program expertise in his particular area to show:
      (1) Interrelationships of all disciplines as a totality, each contributing to everyone's entire life pattern
      (2) Limitations of people and the need for the expertise of other disciplines
      (3) Importance of obtaining professional advice when necessary
   D. To present world, national, and local sociobusiness problems from as many of the major sectors as possible: agriculture, government, business, labor, and the consumer
   E. To develop behavioral objectives and evaluate them from time to time in keeping with changing class and individual priorities and new interests
   F. To develop not only a variety of means for measuring mastery of course content but also the ability to observe student behavior objectively without reference to his own personal values

2. Emphasizes the positive aspect rather than the difficulty of understanding the subject matter by:
   A. Recognizing that society as a whole will be helped greatly by the student's intelligent understanding of the meaning and operation of the sociobusiness world in which he lives
   B. Presenting principles in a manner that is accurate, yet understandable, by bringing them within the personal experience of the student
   C. Using simple cases to explain and illustrate further those principles that are not self-evident

   D. Assisting the student to adapt himself more readily to sociobusiness situations that arise in the lives of all citizens regardless of their occupations

3. Assists students in deciding on career objectives from among the multitude of employment opportunities in business by:
   A. Stressing that attitude, personality, and behavior are interrelated
   B. Emphasizing the need for students to communicate in an intelligent manner, follow instructions, assume responsibility, and show an aptitude for working-togetherness
   C. Informing students that many of today's jobs involve relations with people, stressing interacting and reacting with them, often persuading them, often advising them
   D. Integrating skills, knowledges, and understandings obtained in other specialized courses: accounting, English, law, mathematics, and the like
   E. Making them aware of career opportunities associated with each unit that is presented and the appropriate educational preparation to be sought

4. Conducts the study of sociobusiness problems within the framework of:
   A. Maximum personal objectivity, taking no political position, supporting no special point of view, knowing that to do so immediately divides his class into factions: those favoring his point of view, those not favoring his point of view
   B. Student freedom of inquiry and decision, recognizing
      (1) That "the right of petition" guarantees to each student the right to be heard and to make his own decision
      (2) That in using propaganda either for or against a point of view, the student must be educated to be analytical of all available facts and alternatives and to be discerning in reaching a decision, yet respectful of the decisions of others
      (3) The necessity of rapport between classmates if participants are to be given an opportunity to express their values and to test them against other points of view
      (4) The need for scientific research for making plans and decisions
      (5) That a free society is one of trial and error with generally no one-and-only answer and that each situation must be faced in light of existing knowledge and possible alternatives
   C. An environment with which the student is most familiar, namely, the community

5. Develops a resource center of supplementary instructional aids:

A. To help students become aware of the need to discern between helpful, informative materials and the biased, narrow-interested, or self-serving materials designed by vested interests
B. To assist students to evaluate informational, promotional, and educational materials as individuals as well as members of a resource evaluation group
C. To keep aware of current issues, future problems, and possible alternatives for solutions
D. To permit students to develop their own process for decision making through carefully prescribed materials and aids
E. To develop student ability to read and interpret information from charts, graphs, and tables
F. To provide student-centered activities such as simulated situations, case studies, games, crossword puzzles, and the like that permit each student to participate to the extent of his ability
G. To provide field trips into the world of work as opportunities to bridge the classwork with the world of business
H. To use multimedia aids not as a replacement of the teacher but as an aid to the teacher

6. Recognizes that the question-and-answer method has more uses than just for recall of information from a lecture or textbook and instead
   A. Uses questions to evaluate background of students before presenting a new topic or unit
   B. Uses questions (often full of half-hints) to form the basis of a discussion or to arrive at a general principle or concept
   C. Uses thought-provoking questions (often full of half-hints) at close of a discussion to motivate students toward a new assignment
   D. Uses thought-provoking questions to summarize or review toward close of a discussion, minimizing his role as "center stage" during discussion
7. Varies his methods of introducing propositions that may rise by:
   A. Being a discussion leader, rather than a lecturer, throughout the class period
   B. Making effective use of multimedia aids that correlate with the material under discussion
   C. Calling upon business leaders, lawyers, and police to bring the community and the world of work into the classroom
   D. Using the "devil's advocate" approach in discussion of some policies and principles
   E. Dividing class into small groups for specialization in specific areas and becoming actively engaged in helping these groups

F. Making regular reference to important pending and recent legislation and encouraging students to think in terms of alternatives

8. Adapts his instruction to the abilities, needs, and interests of each student, recognizing that learning does not consist merely of memorized facts but also of useful information acquired in the solution of meaningful problems

9. Strengthens student character by:
   A. Developing respect for law and constituted society
   B. Inspiring students toward high moral and ethical standards
   C. Encouraging respect for opposing opinions and points of view through open, frank discussion
   D. Encouraging students to think for themselves rather than accepting an opinion without reason
   E. Encouraging the more capable and ambitious student to delve into actual cases for further reading
   F. Affording opportunities for growth in logical reasoning based on principles and fact.

THE MARKETING AND DISTRIBUTIVE EDUCATION TEACHER

(Chapter 6)

The interested and professional teacher-coordinator of marketing and distributive education is one who OFF SEAT, ON FEET—

1. Has extensive experience in the field and is able to relate this experience enthusiastically to the distributive occupations for which his students are preparing
2. Uses correct terminology for the field and teaches this correct terminology so that his students know the "language of the trade"
3. Interprets the course material in light of student experiences to date; e.g., when teaching basic concepts, he uses examples from organizations in the surrounding community or from the products and services that his students buy and use
4. Realizes each of his students is an individual and presents materials so that every student in the class can participate
5. Individualizes his teaching by accounting for differences in student abilities, finding something to appreciate in the work of every student
6. Considers that the student's mastery of the fundamentals of reading, writing, and mathematics is important in each assignment and in daily class discussions by indicating correct English usage, by calling on each student frequently so that he has ample practice in oral English, and by providing

the student opportunities to apply basic arithmetic fundamentals related to the field of distribution and marketing

7. Provides remedial materials and teaching in correct written and oral English and in basic arithmetic where necessary

8. Teaches by demonstration and example as well as by instruction, being able to do, or to have done, the work expected of the students

9. Inculcates concepts of detail and the need for careful filling out of forms, keeping of logically arranged materials, and promptness in getting a job done

10. Has respect for cost of time, equipment, and supplies, and inculcates that respect in the students

11. Uses a variety of methods of teaching that keeps the students in the class participating in class learning experiences throughout the period

12. Uses role-playing and multimedia materials as learning reinforcements, not as replacements of himself

13. Sets a good example of competency, proficiency, and reliability by marking, evaluating, and returning written work promptly; arriving in class daily on time, being available for student advisement and help; being regular in attendance; and being devoted to the development of his students' knowledge and ability

14. Supervises students on-the-job with understanding and a business-like approach; counsels with students in seminars that encourage their analysis of job situations and their suggestions for solutions of on-the-job problems

15. Encourages students to participate in clubs and other school activities and works with the school's vocational youth clubs

16. Presents information regarding the legal obligations and rights of both the buyer and the seller

17. Develops an awareness of the value of a persuasive personality, stressing that selling involves relations with people, interacting with and reacting to them, persuading them, even counseling them

18. Possesses an aptitude and attitude for public contact work (employer-employee-customer relationships) and regularly emphasizes these in his teaching

19. Encourages students to consider some phase of distribution or marketing as a career through helping students develop various technical skills involved in the various fields, stressing the personal and consumer-use values of the various fields, and stressing their important role in the American economy.

THE TYPEWRITING TEACHER
(Chapter 7)

The interested and professional typewriting teacher is one who OFF SEAT, ON FEET—

1. Dominates the typewriting class, not as a proctor whose chief duty is to make assignments and grade papers, but as an analyst, consultant, and advisor
2. Knows that rather than correct bad habits it is far easier to develop and protect good techniques by—
   - A. Being concerned with student's accuracy of motion rather than accuracy of copy, especially during the first semester
   - B. Focusing on germane techniques during previews and application
   - C. Inserting a word or phrase of reminder just prior to beginning an activity, like "hands . . . eyes . . . back . . . feet . . . curved fingers . . . ready, begin"
   - D. Assuring students that making errors in the initial stages of any training activities is natural and can be overcome with the *right kind of practice*
3. Conducts class and individual demonstrations daily in the development, refinement, and reinforcement of correct techniques in both skill development and application, demonstrating his ability to "practice what he preaches"
4. Does preventive rather than corrective teaching, making sure, for example, that student has understood instructions and is following them, reinstructing and clarifying individually where necessary
5. Uses correct technical terminology for the typewriter and insists that students know the terminology and proper use of the typewriter parts
6. Uses his voice as a teaching aid in developing proper mindset (e.g., says "begin" slowly and softly when beginning a timing, but loudly and sharply when developing speed)
7. Helps students to realize that speed and accuracy in typewriting alone do not necessarily assure high productivity but that high productivity is attained as well by—
   - A. Refining organization of work stations and working materials for ease of performance
   - B. Analyzing student time and motion utilization so as to effect better use of both
   - C. Adjusting student posture and equipment to reduce fatigue and errors
8. Makes sure that each drill has a purpose and that each student is aware of that purpose and is *working with the teacher* towards its accomplishment

9. Knows that *purposeful repetitive practice of the right kind at the right time for short periods of time* is of paramount importance
10. Integrates duopurpose drills that are designed not only to improve the typewriting performance skills of the typist but also to review, recall, reinforce, and refine the language arts skills
11. Analyzes (unobtrusively) the student's work in the typewriter, offering advice for improvement when necessary
12. Regularly uses the 1-minute and 2-minute timings to develop speed and accuracy concurrently and the 3-minute (now growing in use) for evaluation rather than the 5-minute
13. Carries on regular critical analysis of student weaknesses in techniques and provides suitable, proven materials to eliminate those weaknesses (fingering, stroking, carriage return, tabulating, backspacing, paper insertion and removal, etc.)
14. Uses reasonable and sensible application materials, discarding such time-consuming, pointless applications as recipes, poems, designs, songs, puzzles, and the like
15. Gives help in making judgment decisions in such things as horizontal and vertical placement, word division, English usage, punctuation, and the like
16. Makes sure that each production job is a teaching-learning experience rather than mere busy work for the student
17. Is concerned not only with the student's end-product, but also with the why and how behind the production; knows, for example, that the student tabulates, not lists, statistical materials; that student does not make two or three copies of a piece of work, handing in the best copy as the initial attempt
18. Has additional challenging materials or plans ready for the student who is proceeding at his individual pace
19. Is not content to repeat annually his first year's experience 20 or more times but is willing to experiment with new ideas
20. Checks regularly on safety precautions and devices (cords, outlets, security of equipment, and the like)
21. Is aware of and is using some of the new things such as video tape, TV, multiple-listening, programmed materials, transparencies, etc.

THE ADVANCED TYPEWRITING TEACHER

The interested and professional advanced typewriting teacher (offering a separate course, or, ideally, during one of a two-period Office Procedures course) is one who OFF SEAT, ON FEET

1. Knows that for developing vocational typing competency calls for regular recall, review, refinement, and reinforcement of everything the beginning typewriting teacher initiated
2. Knows that advanced typewriting requires much further perfecting of the basic applications started by the beginning typewriting teacher, that it is not merely "more of the same" under the guise of a laboratory of job assignments, timings, and school or community typing projects
3. Knows that the degree of success attained in the development of a vocational typing skill depends just as much upon careful planning, organization, presentation, and follow-up as for any other class
4. Gives major emphasis in course content to reviewing, recalling, refining, and reinforcing the communicative skills, using the typewriter as a teaching machine rather than merely as a writing implement
5. Replaces timings with experiences in timed production jobs
6. Simulates office conditions in atmosphere, work, requirements, and behavior as much as possible
7. Provides experiences in increasing productivity in operation of the typewriter and related materials and equipment.

THE SHORTHAND TEACHER
(Chapter 8)

The interested and professional shorthand teacher is one who OFF SEAT, ON FEET

1. Repeatedly associates the learning of shorthand with the ultimate goal (shorthand knowledge + English fundamentals + problem solving = transcription skill) by—
    - A. Expanding the pretranscription phase of teaching shorthand by providing time, in the very early stages, along with the reading and spelling approach, for:
        - (1) Dictation from easy, copied plate material to easy, normal teacher-dictated material, thoroughly previewed, eventually to the more difficult teacher-dictated material, thoroughly previewed—keeping in mind—
            - (a) The textbook is not to be used as a "crutch" during dictation of homework or practiced materials
            - (b) Dictation practice of the right kind should be repetitive and interlaced liberally with intensive teacher-controlled preview and postview drills
            - (c) The dictation for speed development is different from that for transcription

(d) Some dictation is within the grasp of all students sometime during each period

(e) Some dictation is paced just beyond the reach of the fastest students (a speed too-long maintained becomes a fixed speed)

(f) Each student takes not only the dictation given at his ability level but also that which is just below and just above his ability level, but he transcribes only that given at his ability level

(g) There is dictation other than letters (teachers are too "letter-happy" in dictation classes)

(h) Little, if any, time is used in having students read back speed-building dictation (if student got it, why read back; if student did not get it, why waste time stumbling along in trying to read it back?)

(i) There is less asking, "How many got it (the dictation)?" and more "seeing" and "sensing" by the teacher, with very short breaks between takes

(j) Purposeful repetitive practice is being done by the students *as directed* by the teacher

(k) Student outlines for transcription purposes are well written

(2) Vocabulary building (word lists, word families, expansion of text illustrations of shorthand principles, previews, postviews, and the like)

(3) Consistently and persistently reviewing, recalling, reinforcing, and refining transcription skill-builders (decision-making situations, preferably at the typewriter), with particular emphasis on the language arts

B. Teaching pretranscription at the typewriter from easy, thoroughly previewed plates and dictation to gradual, previewed, normal and more difficult material

C. Doing preventive rather than corrective teaching by—

(1) Using a two-day introductory reinforcement plan for introducing new principles: introducing new principles one day, reinforcing them the next day through reading, spelling, and penmanship, following by reading homework assignment after second presentation

(2) Requiring that the shorthand plates to be written as homework be written not only from the plates themselves but also at least once from the key in the "Student's Transcript"

(3) Not assigning each new lesson as a whole, but, instead, assigning about two-thirds of the reading and writing materials, holding the

remainder as "old material" to be used later as written homework assignments, dictation practice, transcription, and the like

(4) Using intensive teacher-controlled chalkboard previews and post-views of all dictation materials (except dictation tests) to build dictation skill and shorthand vocabulary and to refine and reinforce penmanship pointers

(5) Analyzing (unobtrusively) individual student weaknesses in theory and techniques and providing suitable advice and materials to eliminate those weaknesses (e.g., programmed materials, directed homework study guides, and the like)

2. Helps students realize that speed in taking dictation and in operation of the typewriter do not necessarily assure high productivity but that high productivity is attained also by—

A. Refining organization of work station and working materials for ease of performance

B. Analyzing student time and motion utilization so as to effect better use of both

C. Adjusting student posture to reduce fatigue in taking dictation and in transcribing

D. Writing accurate shorthand outlines

E. Making rapid decisions regarding punctuation, typing usage, word division, etc.

F. Using the dictionary and other reference manuals correctly and quickly

G. Checking on correct use of the notebook—

(1) Lying flat on the desk at an angle

(2) Using only one column at a time

(3) Writing only on front pages of each sheet, reversing complete notebook when all front pages filled

(4) Crossing out with a diagonal line all "transcribed material" (whether orally read back or merely repetitive takes on practice material or actually transcribed)

(5) Dating each page at the bottom

(6) Banding off "transcribed materials"

(7) Flipping pages, not turning them under the notebook

(8) Moving page upwards as each column gradually becomes filled

(9) Using "end-of-take" symbol

(10) "Coding" each take (paragraph/letter number; started in very early stages of dictation)

(11) No writing on last line

(12) Always available at a split second's notice for dictation

3. Uses in chalkboard work those techniques expected of students in using their notebooks by
   - A. Dividing board into columns, resembling notebook
   - B. Dating at the bottom of chalkboard columns
   - C. Writing, not drawing, outlines
   - D. Writing outlines that are not too large, yet quite visible
   - E. Crossing out, not erasing, incorrect or poorly written outlines
4. Coordinates the work in the shorthand class with that in the typing class (preferably both taught by the same teacher) to
   - A. Repeatedly—through both class and individual demonstration—recall, refine, reinforce, and build on what the beginning typewriting teacher had initiated
   - B. Give major emphasis in course content to reviewing, recalling, refining, and reinforcing the language arts skills, first through printed materials, gradually through shorthand plates and dictation, using the typewriter at all times as a teaching machine rather than merely as a writing implement.

THE TRANSCRIPTION TEACHER
(Chapter 9)

The interested and professional transcription teacher is one who OFF SEAT, ON FEET—

1. Knows that developing vocational transcription competency calls for regular recall, review, refinement, and reinforcement of everything the beginning shorthand teacher initiated
2. Knows that the degree of success attained in the development of a vocational transcription skill depends just as much upon careful planning, organization, presentation, and follow-up as for any other class—and perhaps more
3. Believes that transcription is a drill subject and should be taught, not leaving to chance the meshing of the various skills and knowledges involved: typewriting, shorthand reading, English usage, punctuation, spelling, use of numbers, proofreading, environmental contexts, problem solving, and decision making
4. Knows that the teaching of transcription must be geared to achievement of job competence
5. Knows that in the development of the shorthand writing skill, dictation for transcription is different from dictation for speed development

6. Knows that in the final stages of transcription development there should be an intertwining of the dictation for speed and dictation for transcription
7. Gives regular individually and collectively prescribed remediation demonstrations, both to the class and to individual students who need special attention
8. Previews and postviews dictation material liberally, both for the development of editorial power and transcription confidence
9. Believes in concentrated short dictation takes to develop speed reaction and in office-style dictation takes for 10 to 15 minutes to develop joblike stamina
10. Helps student to realize that speed in taking dictation and efficiency in operating the typewriter do not necessarily assure high transcription productivity but that high productivity is also achieved through:
    - A. Further refining organization of work station and working materials for ease of performance
    - B. Further analyzing student time and motion utilization to effect better use of both
    - C. Continued adjusting of student posture during dictation and while transcribing at the typewriter to reduce fatigue to a minimum, thereby reducing errors
    - D. Further refining and reinforcing typewriting techniques as they relate to transcription of shorthand notes
    - E. Continued refining of penmanship, correct use of notebook, and the like, started in the beginning shorthand class
11. Further refines the varying levels of dictation ability by providing suitable materials and instruction for each level, challenging the best of the "top" students by using audio equipment and by working with the less capable in small groups or individually
12. Searches for student weaknesses in knowledge of shorthand theory and provides remedial advice and materials for eliminating those weaknesses
13. Does preventive rather than corrective teaching by prompting students over such "hurdles" of transcription as punctuation, often phrased as questions full of half-hints
14. Develops student ability to read poorly written notes and to fill in portions missed in the dictation by the "sense" or intent of the message
15. Observes and works to improve a smooth transcription skill at the typewriter rather than one that is jerky and spasmodic
16. Avoids continuous testing or grading of transcripts, using the class period for teaching rather than for daily testing
17. Requires frequent transcription of "cold" notes

18. Simulates office conditions in atmosphere, work, requirements, and behavior as much as possible.

THE SECRETARIAL AND CLERICAL PROCEDURES TEACHER
(Chapters 10 and 11)

The interested and professional teacher of secretarial and clerical procedures is one who OFF SEAT, ON FEET

1. Knows that a busy student does not necessarily mean that the right kind of learning is taking place, so regularly involves self with each student's learning *at the student's station*
2. Teaches by demonstration as well as by instruction
3. Has mastery of the equipment, being able to do, or to have done, all work expected of the student, and inculcates that confidence in the students
4. Uses correct technical terminology for the equipment and insists that students know the terminology and proper use of the different pieces of equipment and their special parts and applications
5. Checks personally and inculcates respect for proper maintenance, safety precaution devices, and performance of equipment
6. Knows that the ten-key adding machine, other than the typewriter and telephone, is the most used office machine and gears his teaching to achievement of job competency (e.g., touch operation, not hunt-and-peck)
7. Takes student from performing rote operation of adding and calculating machines to understanding the mathematics involved, using the machines not as mere computational devices but as teaching machines in the development and understanding of such arithmetic fundamentals as fractions, decimals, percentages, and the like, as they apply to business situations
8. Uses practice sets as *teaching materials*, not as fill-ins that do little more than consume time, teaching not only the "how-to-do" techniques but also the *why* behind the doing
9. Has respect for cost of time, equipment, and supplies and inculcates that respect in the students
10. Helps students realize that speed and accuracy in operating any machine do not necessarily assure high productivity but that high productivity is attained as well by
    - A. Refining organization of his work station and working materials for ease of performance
    - B. Analyzing time and motion utilization to effect better use of both (pencil in hand while operating machine, recording of data, flipping papers, and the like)

   C. Adjusting posture and equipment to reduce fatigue to a minimum to reduce errors
   D. Refining and reinforcing typewriting techniques as they relate to production typewriting

11. Does preventive rather than corrective teaching, making sure, for example, that student has understood instructions and is following them, reinstructing and clarifying where necessary, before incorrect knowledges and skills become fixed, having then to be unlearned and replaced with correct learnings
12. Believes that all his students should have a "second" language—preferably English; therefore, provides remedial materials and teaching in correct English usage, both in writing and in speaking
13. Uses multimedia aids as teaching-learning reinforcements, not as replacements of self
14. Sets good examples of competency, proficiency, and reliability: marks, evaluates, and returns written work promptly, using the work as follow-up basis for remedial teaching; is on time in class daily; makes self available for additional student help other than in class; is regular in attendance; maintains each student's grades as a confidence between student and self (e.g., returns marked papers to each student personally, faced down); and the like
15. Simulates office conditions in atmosphere, work, requirements, and behavior just as much as possible
16. Provides office-style problems in which students must analyze and plan the work, deemphasizing the mere typing, for example, of letters and forms from a typewriting textbook
17. Is concerned not only with the student's end-product, but also with the *why* and *how* behind the production: knows, for example, that student tabulated, not listed, statistical materials; that student did not make two or three copies of a piece of work, handing in the best copy as the initial attempt; that student knew the need for a given number of copies of a piece of work
18. Provides a variety of materials of varying degrees of difficulty for different levels of ability
19. Developes vocational competency in the typing of numbers of 7 to 10 digits (social security, telephone, credit, postal zones, and the like).

THE ACCOUNTING TEACHER

(Chapter 12)

The interested and professional teacher of accounting is one who OFF SEAT, ON FEET—

1. Recognizes the shifting emphasis of accounting to its present status as a tool for managerial decision making and, therefore, teaches the student to analyze data, interpret the function of the data, and to make necessary decisions, stressing the "whys" rather than mastery of the mechanics
2. Is thoroughly familiar with recent technological developments in integrated and electronic data processing systems and—
   A. Provides student with opportunities to gain an understanding of the kinds of automated tools that are available to perform the work
   B. Integrates the principles and applications of office automation with basic accounting theory and practices
   C. Shows the relationship between manual methods of processing data and automated methods, stressing the procedures basically remain unchanged regardless of the methods employed
   D. Uses flow charts to help students gain an understanding of accounting procedures
3. Sets behavioral objectives toward which the student and teacher work for mastery of accounting knowledges, skills, understandings, and attitudes and encourages each student to achieve to the fullest of his native ability and interest
4. Deals as much as possible with realistic problems and situations
5. Concentrates on a maximum of short teaching-learning units and a minimum of long projects that contribute not only to boredom, carelessness, possible repetitive errors, but also to unrealism of the course
6. Teaches the student that an accounting method is merely an orderly means of sorting, classifying, recording, and presenting useful information so as to measure the results of business efforts
7. Familiarizes students with the kinds of accounting and clerical jobs that exist in their business community while encouraging students to prepare for occupations commensurate with their abilities
8. Uses advantageously a student's knowledge and experience about the world of business, providing problems and creating situations wherein the student is treated as an individual with varying degrees of background, ability, and experience
9. Regards a lack of arithmetic ability as an opportunity to teach the student basic arithmetic functions in a business setting rather than placing the blame for the student's handicap upon the teacher of business arithmetic and refusing to review arithmetic fundamentals when and where necessary
10. Uses problem-type tests aimed at interpretations rather than objective-type examinations aimed at memorization
11. Uses the practice set as—

   A. A teaching rather than as a testing or busy-work activity
   B. An integrating device of the separate learnings into a total accounting situation so that through a complete set of books, the student will see the relation between each phase of the accounting process
   C. A practical situation, as nearly as possible, while at the same time synthesizing the separate instructional units studied

12. Does preventive rather than corrective teaching by making sure student has understood instructions and is following them, reinstructing and clarifying individually where necessary
13. Uses accounting to form the basis for a sound economic education for both the consumer and the businessman
14. Institutes college placement tests so that students with good accounting skills may enter advanced accounting courses at the college level
15. Helps student to—
    A. Organize his work station and working materials for ease of performance and to increase productivity
    B. Analyze his use of time and motion to effect better use of both
    C. Adjust posture and equipment to reduce fatigue to a minimum and to increase productivity
16. Uses the adding machine as a teaching machine in the basic fundamentals of arithmetic rather than just as an implement for checking accuracy of work.

THE DATA PROCESSING TEACHER
(Chapter 13)

The interested and professional teacher of data processing is one who OFF SEAT, ON FEET—

1. Teaches each student as an analyst, a consultant, an advisor, giving frequent individual demonstrations in the development of concepts and reinforcement of correct application of theory
2. Teaches students that high productivity is closely related to—
    A. Organization of work stations and working materials for ease of performance and for accuracy of input and output
    B. Time and motion utilization to effect better use of both—and helps each student to achieve these
3. Develops a sense of clerical correctness and follow-through in each student
4. Instills in the student the principle that the machine can produce accurate output only when there is accurate input
5. Possesses mathematical competency and reasoning powers

6. Provides an opportunity for every student to have "hands on" experience in data processing machine operations
7. Carries on regular critical analysis of student weaknesses in theory learnings and in application, providing suitable, proven materials (for varying levels of ability) to eliminate those weaknesses
8. Analyzes (unobtrusively) the student's laboratory work (programming, using equipment), offering advice for improvement when necessary and giving help in making judgment decisions
9. Makes sure that each production job is a teaching-learning situation, concerned not only with the student's end-product (output) but also in the student's knowing the *why* and *how* behind it
10. Has additional challenging and meaningful materials or case studies ready for student who finishes ahead of time and is familiar with sources of data processing materials available for student use, teacher demonstration, resource units
11. Has respect for cost of time, equipment, and supplies and inculcates that respect in the students
12. Checks regularly with students on maintenance, safety precaution devices, and performance of equipment
13. Has mastery of the equipment and inculcates that confidence in the students
14. Does preventive rather than corrective teaching, making sure, for example, that student has understood instructions and is following them, reinstructing and clarifying individually where necessary
15. Uses correct technical terminology for the equipment and insists that students use the "language of the field"
16. Teaches by example as well as by instruction, being able to do, or to have done, the work expected of the students
17. Is willing to experiment with new ideas, not content to repeat annually the first year's experience twenty or more times
18. Arranges field trips and invites outside speakers that correlate with the teaching-learning in the classroom
19. Uses multimedia aids, especially the overhead projector, to reinforce understandings of machine functions and operations
20. Uses accounting knowledges as a foundation for teaching the types of business information that can be processed via automated techniques, using business problems familiar to the students
21. Prepares stimulating projects and problems for the more capable students to advance their knowledge of the subject.

THE COMMUNICATIONS TEACHER

(Chapter 14)

The interested and professional teacher of communications is one who

OFF SEAT, ON FEET

1. Emphasizes that "communication is any behavior that results in an exchange of meaning: listening, speaking, writing, physical, environmental"; that communications may be called "human relations"; that communications can exchange meanings that are pleasing, displeasing, indifferent, correct, incorrect
2. Realizes his responsibility to refine and reinforce and, if necessary, initiate teaching of what had presumably been done in the English department
3. Shows care, concern, and interest in the individual student by going to the student rather than the student's having to go to the teacher (most students are reluctant to admit openly to their peers their need for help by having to go to the teacher's desk)
4. Makes sure that student has understood instructions and is following them, reinstructing and clarifying where necessary by:
    - A. Giving help in making decisions, preventing errors that later will have to be unlearned and replaced with correct learnings
    - B. Sharing many mnemonics, or memory aids, to reduce the learning load
5. Does preventive rather than corrective teaching by:
    - A. Using a two-day introductory reinforcement plan for introducing new principles introducing one day, reinforcing the next, followed by student application
    - B. Teaching communication through face-to-face contact rather than through exercises, busy-work assignments or projects, and grading of papers
    - C. Regularly recalling that which had been taught and, whenever possible, reinforcing something "old" with the something "new" being presented
6. Consistently uses the typewriter during presentation and application as a teaching machine rather than merely as a writing implement
7. Helps student understand that "correct" English is not always necessary—that there are times and places for different levels of communication, depending, for example, upon social and intellectual level of audience
8. Teaches correct English as a form of good taste, based to a large extent on common sense rather than upon a manual of rigid rules and principles to be memorized
9. Teaches that it is just as easy to speak and write correctly as it is to be careless—that it is a matter of details that have to be treated much the same as one treats manners

10. Regularly practices what he preaches in his written and oral work and in his physical and environmental reflections
11. Helps student realize that in acquiring a knowledge of the language arts skills the student is:
    - A. Helping himself in being able to communicate effectively at varying levels of intelligence
    - B. Able to relieve employer of many of the tedious aspects of checking his own work before having it done in final form that the boss is paid primarily to "think," not to concern himself with details and what in the overall "thinking process" is unessential and trivia
    - C. Developing skills and knowledges that will eventually enable him to compose much of his employer's correspondence with little or no direction
    - D. Better equipped to proofread and edit more effectively not only his own work but also that of others
    - E. Able to create and represent more effectively the "quality image" of the firm he represents as an employee (especially true in communicating by telephone)
    - F. Getting in high school what is required of over 50 percent of college freshman: remedial English, generally a noncredit course
    - G. Not likely to draw undue attention to his inadequacies in an "educated audience"
12. Teaches the language arts with enthusiasm realizing that "grammar" to students is deadly and has at fingertips numerous little devices and gimmicks for enlivening the course
13. Carries on (unobtrusively) regular critical analysis of the oral and written pitfalls of the student and attempts to suggest ways, means, and materials for eliminating those weaknesses
14. Tactfully corrects students who use incorrect English in his presence
15. Limits formal terminology to a minimum (e.g., substitution of "subject pronouns" and "object pronouns" for "case"; elimination of "mode")
16. Uses reasonable and sensible application materials, eliminating that which is for the most part natural for a native-born
17. Teaches student to use a reference manual for unusual situations
18. Teaches students to communicate in small groups.

THE BUSINESS MATHEMATICS TEACHER

(Chapter 15)

The interested and professional teacher of business mathematics is one who OFF SEAT, ON FEET

1. Develops learning packets to individualize instruction
2. Concentrates on a maximum of short teaching-learning units and a minimum of long projects that contribute not only to boredom, carelessness, possible repetitive errors, but also add unrealism to the course
3. Deals as much as possible with realistic problems and situations
4. Explains simply and concisely, through relatively simple, everyday problems, the new principles that provide the essential background information for an understanding of a new process or principle
5. Introduces new principles and new types of problems in step-by-step sequence and provides sample or illustrative problems and explanations of the solution
6. Develops subject matter in graded sequence
7. Uses tests to check student's mastery and as guides for necessary reteaching
8. Explains necessity for estimating or approximating all answers and provides practice for mastery
9. Introduces practical shortcuts that give student the ability to use the arithmetic essential for consumer and personal needs
10. Recognizes that mental calculations are important and provides opportunities for automatizing such
11. Teaches students to analyze written problems to be solved by—
    - A. Determining the answer to be sought
    - B. Mentally noting data in problem to be used to arrive at solution
    - C. Deciding steps to be followed before solving problem
    - D. Approximating answer
    - E. Working the problem
    - F. Checking the answer
12. Reviews arithmetic fundamentals in the context of an interesting business problem rather than as a series of abstract drills
13. Uses projects and practice sets as—
    - A. A teaching rather than as a testing or busy-work activity
    - B. An integrating device of the separate learnings into a total situation so that through a project or practice set the student will see the relation between each of the phases that make up the whole (e.g., sales, returns and allowances, cash discounts, sales discounts, cash receipts; purchases, freight, returns and allowances, cash discounts, purchases discount, payments)
    - C. A practical situation, as nearly as possible, while at the same time synthesizing the separate instructional units studied

14. Does preventive rather than corrective teaching by making sure student has understood instructions and is following them, reinstructing and clarifying individually where necessary

15. Uses mathematics to form the basis for a sound economic education for both the consumer and the businessman

16. Helps student to

    A. Organize his work station and working materials for ease of performance and to increase productivity

    B. Analyze his use of time and motion to effect better use of both

    C. Adjust posture and equipment to reduce fatigue to a minimum

17. Uses the adding machine as a teaching machine as well as an implement for checking accuracy of work

18. Presents sound objectives for the course to administration, guidance counselors, and parents to help them understand better the reasons for the course.

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